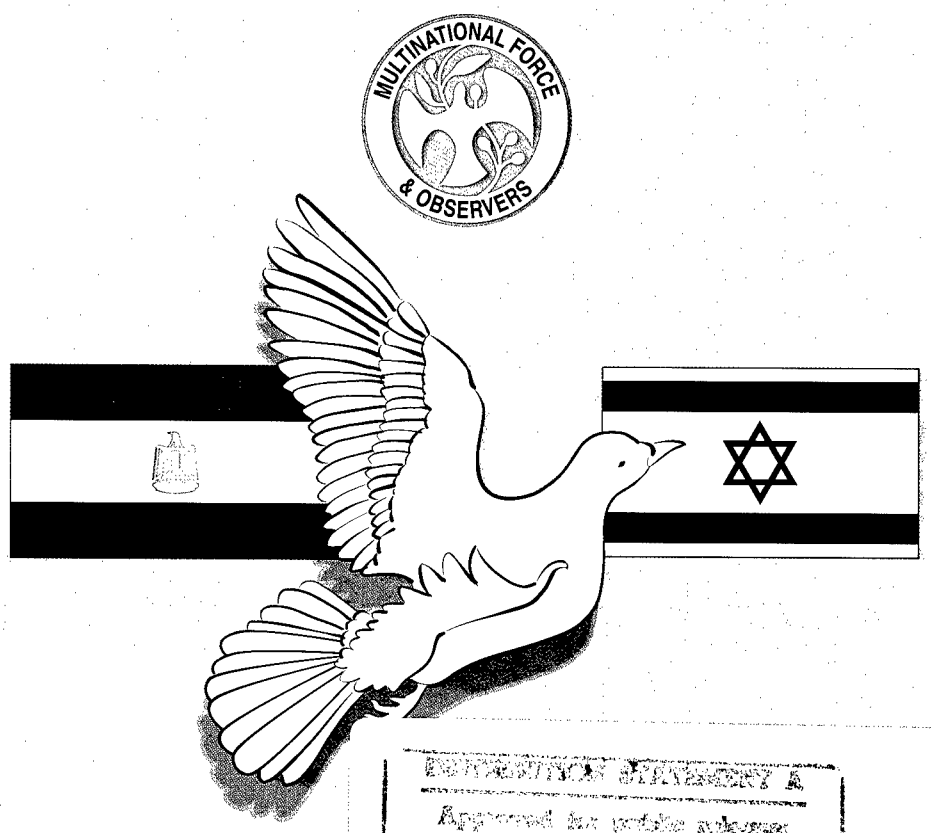
Reserve Component Soldiers as Peacekeepers



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13. SUPPLEMENTARY NOTES

14. ABSTRACT *(Maximum 200 words)*: In the continuing effort to maintain a ready force and honor the United States commitments throughout the world, in 1993 the Chief of Staff of the Army directed a test of the use of Reserve Component forces for the Multinational Force and Observers (MFO) peacekeeping mission in the Sinai. A battalion composed of 80% RC individual volunteers and 20% Active Component soldiers was activated, trained and deployed as the 28th MFO rotation to the Sinai (Jan-Jul 95). ARI conducted an assessment of personnel and training issues using performance, interview and survey data collected longitudinally.

The four research questions and their findings are as follows. *(1) Personnel: Who volunteered and why? What, if any changes should be made to the volunteer screening process?* Most soldiers said they volunteered for a challenging and adventurous way to serve their country and/or to enhance their military careers. Fifty-eight percent of the RC volunteers were employed part/full time; 22% were in school; 20% were unemployed. Inefficiencies and delays in feedback during the screening process resulted in 39% no-shows 3 weeks prior to report date; an intensive recruiting effort resulted in 100% of required fill on report date. Inadequate information during the screening process also resulted in soldier morale problems during the deployment; long term impact on future volunteerism is being researched. *(2) Family Support: How well did the family support system work? What was the impact of Sinai service on the family and civilian lives of volunteers?* The family support system functioned very well, despite families being distributed *(Continued)*

15. SUBJECT TERMS

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over 31 states with 44% more than 50 miles from a military installation. There was high spouse support for the mission; spouses living in MD/VA/NC received more support services than spouses in distant states. Command emphasis and resourcing for family support was critical to its success. *(3) Training/Performance: What are the unique and minimal training requirements? Did the training process produce a cohesive unit that could perform the mission?* Bonding among leaders during the Infantry Leaders Course was high. Leaders felt training should have more MFO specific tasks and fewer infantry tasks; train-the-trainer needed more early emphasis. The Bn was well prepared for the mission as indicated on independent job knowledge tests. Mission motivation, leadership and squad cohesion ratings were similar to those of other rotations. *(4) Impact on the 29th ID(L): What is the impact on the ARNG units that sent volunteers, both during the deployment and post-deployment?* Results showed positive effects on unit morale and slightly negative effects on training and perceived unit readiness in the home units early in the deployment but not late in the deployment. Recommendations for future deployments are discussed in the text.

ARI will continue to assess the impact of the deployment and postredeployment re-entry on National Guard soldier commitment/retention, marital stability and financial well-being through October 1997. Cost analyses are not included in the ARI portion of the MFO assessment.

RESERVE COMPONENT SOLDIERS AS PEACEKEEPERS

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Multinational Force and Observers Task Force Leaders

U.S. Army Research Institute for the
Behavioral and Social Sciences

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CONTENTS

FOREWORD

Research and development to increase the readiness and deployability of Reserve Component (RC) soldiers has been a long-standing program area of the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI). There is currently increased interest in utilizing RC forces to support the increased operational tempo of U.S. forces as the size of Active Component (AC) forces and defense budgets have declined. One of the new strategies being developed is to use RC soldiers to augment or replace AC soldiers. ARI assisted the Chief of Staff of the Army to test this concept using one of America's oldest peacekeeping commitments: the Egyptian-Israeli border in the Sinai.

The Chief of Staff's concept was modeled after the World War I "Rainbow Division" in which National Guard soldiers from across the country were formed into a single division under AC leadership. The research described in this book provides the results of an intensive 2-year assessment of a mixed AC/RC battalion used to fulfill the U.S. peacekeeping commitment in the Sinai. In addition to its expertise in the RC, ARI drew on its institutional capabilities in recruiting and selection, training, economic/life course impacts, family support, leadership, and cohesion. Our experience in personnel performance and training research with previous and ongoing peace missions provided an invaluable context for understanding the degree to which our findings will validly apply to other missions.

Our findings support the use of RC volunteers for the peacekeeping mission in the Sinai. Qualified RC soldiers volunteered, the unit successfully performed the mission, the families throughout the country were supported, and the RC unit from which most of the volunteers were drawn experienced only temporary decreases in readiness but a consistent increase in morale. Within their respective chapters the generalizability of these findings to other missions is discussed.

Our purpose for organizing this research into a book is to make it accessible to military and academic audiences. We hope the military will continue to use these findings to inform decisions and policies about new

roles and missions for the RC. We hope academia will benefit from the theoretical interpretation as well as theoretical expansion.

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ACKNOWLEDGMENTS

The research described in this book was accomplished with the assistance and cooperation of many individuals and organizations throughout the U.S. Army and the Multinational Force and Observers (MFO). Some helped us understand the mission, the environment, the politics, the history, and others provided access to troops, facilities and made our trips to Egypt successful.

Foremost, we acknowledge General Gordon Sullivan (Ret.) for his vision of an expanded use of the Reserve Component and his support of empirical research in peacekeeping. He provided clear research questions, access to troops and their leaders, as well as his time and attention. His concept of a 1990's "Rainbow Division" will likely change how the Army fulfills its international commitments into the 21st century.

The products of research are only as valid as the data collected. We are indebted to the soldiers and officers who served in the 4-505 Parachute Infantry Regiment as the 28th Rotation to the Sinai. They answered our questions, filled out what must have seemed to them as endless surveys and tests, provided us their own unit data, and let us watch them at work and play. We also acknowledge the soldiers and officers of the 29th Infantry Division (Light) who so graciously answered our questions and surveys. We thank the soldiers and officers from the 101st Air Assault Division, the 82nd Airborne Division, and the 24th Infantry Division (Light) who served in prior MFO rotations for their cooperation and contributions to our understanding of the similarities/differences of the 28th Rotation. A special recognition is due to CPT Scott Hillmer for his coordination in collecting our background data. Without the assistance of the leadership and the patience of these units and their soldiers, military empirical research was just not possible.

Special thanks go to LTC Robert Brumley (Ret.), LTC Robert Martinez, and MAJ(P) Angela Manos who served as project officers and our liaisons with Forces Command, the Army National Guard, and the Chief of Staff, Army, respectively. They provided substantive contributions to the quality of our data collection as well as access to

soldiers and decisionmakers. CPT Michael Boston generously shared his experiences as a member of the 28th Rotation and reviewed many of our manuscripts. And finally the assistance of Bob Krantz at the U.S. Department of State, Gus Riolo at MFO Headquarters in Rome, and MG David Ferguson, Force Commander of the MFO in the Sinai, is gratefully acknowledged.

Dr. Mady Segal and Dr. David Segal, separately and together, helped us define the research program, put our research in the context of their earlier MFO work, and provided many stimulating discussions on peacekeeping roles and missions. Their seminal book, *Peacekeepers and Their Wives: American Participation in the Multinational Force and Observers*, introduced many of the soldiers to military social science research, paving the way for our tests, surveys, and interviews. Thank you.

A very special acknowledgment is due to Ramona Cox, who patiently and carefully prepared all the chapters for publication, including the creation of the computer graphics. Dr. Ronald Tiggle created the database for consolidating our data, conducted many of our analyses, and provided expertise in using new statistical packages. Kathryn Fowler assisted in converting our manuscripts into this book, and the cover was designed by Dr. Dale Palmer.

Thank you all for your dedication and perseverance.

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PREFACE

For over a decade and a half, the Multinational Force and Observers (MFO) in the Sinai, in support of the Camp David Accords, has been a major testbed for the participation of U.S. Army units in multinational peacekeeping operations. During the 1980s, as the Cold War waxed and waned in Europe, the two American light infantry battalion task forces that were sent to the Sinai every year for 6 months each were the Army's major opportunities to have regular maneuver formations participate in peacekeeping. Over 30 such battalion task forces—the equivalent of more than 10 infantry brigades—have participated in this operation. When an international workshop on peace operations was held at the University of Maryland in 1993 under the auspices of the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) and the Chief of Staff of the Army, virtually all of the U.S. participants—civilian as well as military—who had any first-hand experience with peacekeeping, as participants, policymakers, or researchers, had gained it through association with the MFO.

The number of multinational peacekeeping operations has increased in the 1990s, and demand for U.S. participation in these operations has been increasing as well. However, the size of the U.S. Army has been decreasing. The experimental use of a composite task force from both the active and reserve components of the Army to serve as the 28th Rotation of U.S. combat troops to the Sinai MFO, which is reported in this book, represents the first attempt to use large numbers of Reserve Component personnel to help meet the United States' growing peacekeeping obligations with a smaller force.

The United States had participated in a few early United Nations (UN) peacekeeping operations. This has included, for example, the United Nations Truce Supervision Organization (UNTSO) in the Middle East. However, these were relatively small and generally short-lived missions. UNTSO is an exception to the principle of brief half-life: it has existed since 1948. However, it is a mission of only 220 personnel, including 17 Americans.

Peacekeeping by multinational military forces under the auspices of international organizations was a relatively new and rare process after the birth of the UN, and as Cold War norms of international peacekeeping evolved, direct U.S. participation was increasingly restricted.

One of the emergent norms of peacekeeping was impartiality. Peacekeeping forces were to serve as disinterested third-party "honest brokers." But in the context of a bipolar Cold War world in which international relations were defined largely by antagonistic superpower relations, it was difficult to imagine either the United States or the Soviet Union as disinterested parties. Anywhere in the globe where there was a conflict, the superpowers were likely to be perceived as being interested parties.

Another emergent Cold War norm was host-nation consent to the presence of peacekeeping forces. Unlike some of the peace operations of the 1990s, the UN was committed to not being a peacekeeping presence where it was not wanted. Indeed, the June 1967 war between Israel and its Arab neighbors was presaged by a withdrawal of interposed troops of the United Nations Emergency Force (UNEF) at the request of the Egyptian government the previous month. UN Secretary General U. Thant defended the withdrawal on the basis of the terms of the original host-nation agreement with Egypt.

In the postcolonial years after World War II, nations in unstable areas of the world were likely to be relatively recently independent and more comfortable with having military forces who were from small- or middle-sized nations that did not have colonial histories than from major powers or superpowers that had colonial histories or were perceived to have imperial objectives on their soil. Indeed, New Zealand was initially rejected from participation in UNEF because of its association with Great Britain in earlier operations in the Middle East, and when Canada volunteered to send a battalion from the Queen's Own Rifles, it was asked to substitute an air force transport squadron and staff and support elements from its ground forces because the similarity between the Canadian and British combat uniform would have set the wrong image. Canada has become a regular participant in UN peacekeeping operations. If the presence of Canadian combat troops was felt to be problematic, imagine how the presence of U.S. or Soviet combat troops on the soil of a less-developed nation would be seen. A Swedish soldier, when he puts

on a blue helmet, becomes a UN soldier. A U.S. soldier, when he puts on a blue helmet, is a U.S. soldier in a blue helmet.

The third important emergent norm of international peacekeeping was minimum use of force. This norm has been reflected in the rules of engagement of multinational peacekeeping forces and is compatible with the military doctrines of many middle powers, who view their military forces more as symbols of sovereignty than as agents of force projection. The United States and the Soviet Union, by contrast, moved increasingly to doctrinal positions calling for the use of decisive or overwhelming force during the Cold War. If there is an incompatibility between the role of soldier and that of peacekeeper, it may be doctrinally greater in the U.S. case than in the cases of nations more traditionally involved in peacekeeping. At the same time, it may be less problematic for reserve personnel than for active Army combat soldiers.

These peacekeeping norms contributed to the development of an international peacekeeping doctrine during the Cold War that excluded superpower participation. Indeed, when the Camp David Accords were drafted, under the assumption that the MFO would be a UN mission, they explicitly precluded major power military participation in the MFO. Under the terms of the original treaty, the United States was not to be in the Sinai.

Tensions among the major powers precluded UN sponsorship of the MFO, and other auspices were sought. It became clear that in the absence of the moral force of the UN, a U.S. military presence was required to guarantee the credibility of the force. The treaty was modified, and the United States committed itself to contributing an infantry battalion and a logistical support unit to the MFO. This reflected a change in peacekeeping norms—a process that has become increasingly obvious with the passage of time.

Most traditional peacekeeping operations, involving observers or military forces interposed between belligerents who are trying to disengage from a conflict, are seen as transitional missions. One of the unique elements of the MFO is that it is not transitional. It is not in place while awaiting a peace; it is a negotiated part of the peace. Its presence is stipulated in the Camp David treaty. Thus, while the U.S. Army grows smaller through the process of the downsizing of the 1990s, as the norms

of international peace operations have changed to allow, and in fact seem to require, U.S. military participation and the new world disorder has required a record number of deployments of U.S. military personnel, the United States' obligation to contribute troops to the MFO will not go away.

It was in this context that General Gordon Sullivan, former Chief of Staff of the Army, asked researchers from the University of Maryland to collaborate with behavioral scientists from ARI to study the composite active and reserve unit he was sending to the Sinai as the 28th U.S. Rotation to the MFO. The MFO had moved from a generic testbed for U.S. participation in peacekeeping to a testbed specifically to evaluate the use of reserve personnel to help fulfill peacekeeping obligations as part of the United States' Army. The establishment of this task force itself required a modification of the Camp David protocols, which specified that the American battalion serving in the Sinai would be a regular army unit and not one specially developed for this mission.

This has been a fortuitous experiment and an exciting collaboration. Those of us from the University of Maryland who participated in this project feel that we have been a part of history, helping to clarify the roles that the reserve components might play in the Army of the 21st century. We feel that the soldiers of the 4-505 Parachute Infantry Regiment, which was activated as the composite battalion task force for the 28th Rotation of the MFO, demonstrated that, at least for a mature peace-interposition mission, evaluated against a criterion of military effectiveness, reserve component personnel can make a significant contribution to the United States' peacekeeping obligations. At the same time, we were impressed at the ability of ARI to put together its own task force of behavioral scientists from diverse parts of its organization, and indeed from diverse geographical locations, to execute the large, carefully designed research program that is described in this book. We anticipate that this volume will become an important part of the growing body of scientific literature on peacekeeping.

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EXECUTIVE SUMMARY

Ruth H. Phelps

Recent cuts in strength, coupled with increased demands for participation in peace missions, have caused the Army to consider new options for meeting its international commitments. One option is to use the Reserve Component (RC) for missions currently performed by the Active Component (AC). In 1993, the Chief of Staff, Army (CSA) directed the Army to test the feasibility of recruiting qualified RC volunteers, forming them into a battalion, and deploying them on the Multinational Force and Observers (MFO) peacekeeping mission in the Sinai Peninsula. The U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) and the University of Maryland were called upon to conduct an assessment of this test.

The MFO was created as a neutral organization to observe and report violations to the Egyptian-Israeli Treaty of Peace (1979) resulting from the Camp David Accords. As part of its contribution to the MFO, the United States has deployed an infantry battalion for 6-month rotations to the Sinai continuously since 1982. This battalion has the peacekeeping responsibility for the area of operation in the southern third of the Sinai bordering the strategic Gulf of Aqaba and the Straits of Tiran. Squads typically spend 3 weeks at a remote observation/control site, 3 weeks at base camp, then rotate back to the same remote site.

The test battalion (the 28th Rotation) was activated on 4 November 1994 and deactivated on 28 July 1995 as the 4-505 Parachute Infantry Regiment of the 82nd Airborne Division. It consisted of 80% RC and 20% AC. Officer and noncommissioned officer (NCO) positions were divided equally between the two components, leaving nearly all junior enlisted positions to be filled by RC soldiers. Although this test unit was to perform the same mission to the same standards as those of previous all-AC units, it needed a different approach to team building, training, and family support. In addition, because this was the first test of a

composite AC/RC unit performing such an important international mission, this unit had to cope with considerable media coverage and a large number of visiting dignitaries.

ASSESSMENT AREAS AND METHOD

ARI's research involved the assessment of five areas: (a) *Personnel*, which examined the recruiting and screening process of volunteers, their demographics, reasons why they volunteered, and their expectations of the peacekeeping experience; (b) *Training*, which examined the types of tasks trained, the length and sequence of training, and soldiers' job knowledge following training; (c) *Attitudes and Perceptions*, which examined unit cohesion, morale, and impact of volunteering for the deployment on soldiers' civilian and military lives; (d) *Family Support*, which examined the system put in place to support families located across the country and how serving in the Sinai affected the quality of soldiers' marriages; and (e) *Home Unit Impact*, which examined the personnel, training, and readiness changes that occurred in the 29th Infantry Division (Light) (29th ID[L]) as a result of losing soldiers to the MFO mission.

These five areas were examined using a longitudinal case study method in which soldiers in the test battalion were tracked throughout the activation period. During this time, we surveyed and/or interviewed soldiers, leaders, trainers, and spouses. We measured job proficiency using supervisor ratings and soldier's scores on job knowledge tests. We visited the test unit to collect these data three times during predeployment and twice during Sinai deployment. In addition, we gathered comparable data from prior all-AC rotations where possible.

FINDINGS

Personnel

All required 446 RC slots were filled with volunteer soldiers meeting the physical and performance standards set by the Army. These soldiers came from 35 states, with the majority (53%) coming from the Maryland

and Virginia Army National Guard (ARNG) [(i.e., 29th ID[L]) where recruiting was initially focused. Forty-five percent were employed full time, 25% were either employed part-time or in school, and 20% were unemployed. Only 35% of the RC volunteers were married. Most RC soldiers said they volunteered for a challenging and adventurous way to serve their country and/or to enhance their military careers. Eighty-one percent of RC soldiers intended to take educational courses while in the Sinai, and 97% planned to travel for recreation.

Despite the overall success in acquiring qualified volunteers, we found that 3 weeks prior to the report-for-duty date, 39% of the RC soldiers who had volunteered initially were subsequently unable to report, primarily because they were not informed of their mission acceptance early on in the recruitment process. Citizen soldiers must take the needs of their employers, military units, and families into account when deciding to volunteer for extended overseas missions. As a result, we found that it is likely that a significant number of soldiers who volunteer several months before a mission may not be available at the reporting date if such information is not available early in the process. The "good news" is that the 39% shortfall was filled within the remaining 3 weeks by soldiers from around the country who were able to volunteer on short notice.

Training Procedures, Tasks, and Performance

We tracked which tasks were trained, how well they were performed, and the soldiers' and trainers' evaluation of the training that was conducted during predeployment and overseas deployment. The 3 months of training received by the test battalion during predeployment was comparable to that received by a recent all-AC battalion before its arrival in the Sinai. However, an additional 2 months were spent training the test battalion's leaders both in garrison and at the Infantry Leaders Course (ILC) at Fort Benning.

Tests were specially developed to measure each soldier's knowledge of common soldiering tasks and MFO peacekeeping-specific tasks. Test battalion scores collected just prior to deployment were comparable to those obtained from an all-AC prior rotation. However, during the deployment itself, the test battalion concentrated on

peacekeeping-specific tasks, whereas the prior all-AC rotation decreased its training on these tasks and increased its emphasis on warfighting tasks. Because the test battalion was to be deactivated following the MFO mission, there was no need to prepare for a follow-on assignment as a unit, and thus, their training was focused largely on peacekeeping tasks. Content analyses of the predeployment training showed that the ILC could be shortened or replaced by training that emphasized more peacekeeping tasks and fewer infantry tasks.

Perceptions and Attitudes

The attitudes and perceptions soldiers hold about each other, their leadership, other components, the mission itself, and the Army in general can affect mission performance, soldier willingness to volunteer for other missions, and commitment to remain in the Army. We therefore examined soldier morale, unit cohesion, fulfillment of expectations, and the impact of the deployment on their civilian and military lives.

Even though this unit had not previously served together, their unit cohesion was comparable to that of a prior all-AC rotation. High unit cohesion was built early in the predeployment training and remained high throughout deployment in the Sinai. There was a drop in soldier morale, however, and a significant decline over the predeployment and deployment period in the number of RC soldiers who reported that they would volunteer again (36% decrease) or would remain in the military (26% decrease). This drop was the result of discrepancies in soldier expectations that were formed during the recruiting/assignment process and what was actually experienced once on duty. Educational opportunities, for instance, were fewer and costs were higher than the RC soldiers anticipated. In addition, some AC soldiers believed that this assignment would count as an overseas unaccompanied short tour.

We did find that soldiers who volunteered for patriotic reasons tended to have higher mission motivation, morale, and squad cohesion than soldiers who volunteered for monetary reasons. However, morale differences were not related to the soldier's component, demographic background, previous experience overseas, or how long before reporting for duty the soldier had volunteered.

Family Support

Although only 30% of the test battalion's RC soldiers were married (compared to 59% of the AC soldiers), their families were scattered across 26 states. Supporting these families would be difficult for the standard AC system because 44% of RC families lived more than 50 miles from any AC military installation. The solution implemented by this test battalion was a system that energized existing combined AC and RC assets to support the volunteer families. For example, ARNG family coordinators were notified of any families in their states and then provided with special MFO information to assist these families. In addition, the Battalion Commander made family support a high priority and assigned an ARNG family support NCO to the rear detachment as a full-time family assistance officer.

Interviews and survey responses from soldiers and spouses showed that they used family and non-Army friends as their primary means of support and problem solving. Most of the spouses who did use the Army's family support system found problems resolved to their satisfaction. However, soldiers seemed more concerned about marital quality than spouses and even reported that this worry affected their morale and job performance in the Sinai.

Home Unit Impact

Unlike the research areas that focused on soldiers who deployed to the Sinai and their spouses, this last area assessed the impact of the peacekeeping mission on the 29th ID(L). This division was responsible for the RC portion of the mission and contributed most of the test battalion's volunteers. We surveyed (twice) and interviewed (once) 71 senior leaders from the nine contributing infantry battalions within the division. We also surveyed 875 junior leaders and soldiers from these same battalions.

Senior leaders initially reported a negative impact on their combat readiness and training, with those leaders who lost more troops reporting greater impacts. By the time volunteers had returned to their units after deactivation, however, these same senior leaders reported the impact on their combat readiness and training to be actually positive. In addition,

73% of the senior leaders reported that the volunteers returned better trained than before they had left.

In contrast, sponsorship of the peacekeeping mission had a consistently positive effect on the division's morale. Both senior and junior leaders reported there was an increase in morale in the unit and that the volunteers themselves returned with enhanced morale. It appears that the unit was proud to be selected as the peacekeeping mission's sponsor and 90% of junior and senior leaders endorsed future participation in similar missions.

CONCLUSIONS AND RECOMMENDATIONS

We conclude that the use of RC soldiers for the MFO mission can be a successful strategy for meeting U.S. overseas military peacekeeping commitments. Although the conclusions and recommendations listed below were derived from the MFO mission, we believe they will generalize to other missions, but only to the extent that such missions are similar to that conducted in the Sinai in terms of their situation stability, force complexity, and degree of threat.

1. Personnel: Enough qualified RC soldiers volunteered.

- Maintain more frequent communication with volunteers about their status in the selection process.
- Identify in advance the conditions, opportunities, and benefits of volunteering, and present them in writing to all volunteers, regardless of component, unit, or location.

2. Training Procedures and Tasks: Soldiers were well trained and conducted a successful mission.

- Shorten the predeployment training time by focusing soldier and leader training on peacekeeping tasks only.

- Delete the ILC and build cohesion using peacekeeping training.
- Use job knowledge tests and supervisor rating scales for diagnostic and competency testing.
- Develop *unit* measures of peacekeeping performance to complement the existing soldier measures.
- Add or reorient training to include command and control synchronization. Consider using simulations and simulators.

3. Attitudes and Perceptions: Cohesion was high, but morale declined.

- Train leaders to recognize conditions of peacekeeping that lead to morale problems; e.g. boredom and isolation.
- Make leaders aware of negative morale effects caused by micromanagement.
- Set more realistic soldier expectations by increasing the frequency and accuracy of information during recruiting and reinforce during training.

4. Family Support System: Combined AC/RC system was successful.

- Keep family support a high priority.
- Keep family support providers as geographically close to families as possible and maximize use of existing state family assistance programs.
- Improve accuracy of information on family addresses and telephone numbers.

- Budget for morale telephone calls (at least one call home per month without charge to the soldier).

5. Impact on RC Home Unit: Unit morale increases; unit can compensate for small temporary losses in personnel.

- Limit the number of soldiers taken from individual battalions by drawing from the largest volunteer pool practicable.

- Capitalize on the morale benefits of sponsoring a special mission such as the MFO.

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SECTION 1

INTRODUCTION

In 1993, the Chief of Staff of the Army tasked the Active Component (AC) and the Reserve Component (RC) to design a test for using RC volunteers to augment or replace AC soldiers in at least some peace missions. He selected the Multinational Force and Observers (MFO) mission in the Sinai as the testbed, and the U.S. Army Research Institute for the Behavioral and Social Sciences assessed its feasibility, concentrating on personnel and training issues.

When designing our research, we focused on obtaining practical empirical answers to the Chief of Staff's questions. However, whenever possible we also used these same data to further military social and behavioral sciences theories. Thus, the reader will find some chapters technical, some descriptive, and yet others descriptive with theoretical interpretations.

The opening section to *Reserve Component Soldiers as Peacekeepers* summarizes the background, the research questions, and the general research approach used in the following six Sections. Chapter 1 (Phelps) describes the five personnel and training research areas investigated, the reasons for selecting the MFO mission, and how the mission is executed. Chapter 2 (Phelps) covers the general research approach, how and when data were collected during predeployment training and the deployment itself, and the research instruments. Details unique to individual research questions are covered in their respective chapters.

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INTRODUCTION

Ruth H. Phelps

During 1993-1995, the U.S. Army tested the concept of using Reserve Component (RC) volunteers to fulfill America's commitment to the Multinational Force and Observers' (MFO) peacekeeping mission in the Sinai Peninsula. The purpose of this test, as envisioned by the Chief of Staff, Army, was to examine the feasibility of recruiting qualified RC volunteers, forming them into a battalion-sized unit, and deploying them overseas for a 6-month peacekeeping assignment in the Sinai near the Egyptian-Israeli border. At the Army's direction, the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) designed and conducted an empirical assessment of the test. This book documents our findings.

The Army is interested in expanding the RC's role in peace missions because of escalating worldwide demands for U.S. military assistance and current reductions in military strength. Today's Army is 25% smaller than that of 1990, with the combined strength of the Active Component (AC) and the RC (Selected Reserve only)[1] decreasing from 1,520,108 soldiers in 1990 to 1,140,912 soldiers in 1995 (Defense, 1990; 1995). Although both components have decreased in size, the AC decreases have been larger (31%) than RC decreases (19%).

1 The Army Reserve Component includes the U.S. Army Reserve and the Army National Guard, both of which have troop units (the Selected Reserve) and soldiers as individuals (Individual Ready Reserve and the Inactive National Guard). Soldiers who leave active duty, but still have an obligation to the Army, are placed in the Individual Ready Reserve. Thus, whenever there is a reduction in the size of the active Army, there is a temporary increase in the Individual Ready Reserve. Therefore, it is most accurate during a draw down to use only the Selected Reserve strength figures.

Historically, when reductions in AC strength are required, the Army has changed force structure by moving units from the AC to the RC (Binkin & Kaufmann, 1989), so that now 55% of total Army strength lies in the RC (Selected Reserve).[2] Given the AC's smaller size, its capability to fight and win two simultaneous regional conflicts could be questioned.[3] One strategy to compensate for the smaller AC force would be to commit RC forces to more missions, thereby freeing the AC for other contingencies (Vaccaro, 1995).

The Chief of Staff's vision was to create a test battalion composed of RC volunteers from all over the country, then train, deploy, and return the volunteers to their civilian lives. This concept was modeled after the World War I "Rainbow Division" in which National Guard soldiers were brought together from 26 states to form the 42nd Division (Dupuy, 1971). It was his intention to create this test so the Army could learn about questions such as: will enough qualified soldiers volunteer, what training is needed, and did the Army have a system to support families distributed throughout the country? The Chief was not questioning the capability of RC soldiers to perform the mission, rather he wanted to identify the logistics, recruiting, training, and family support requirements of the concept. He selected the Sinai mission as his testbed because it offered the opportunity to experiment in a predictable, low-conflict environment, with minimal risk to both U.S. soldiers and the diplomatic relationships of the United States, Egypt, and Israel. At the same time, the ARI research could be conducted under stable test conditions using an internationally important mission in an extremely volatile area of the world.

The decision to use the RC in the Sinai required the Army to consider the terms of the Treaty of Peace that was signed between Egypt and Israel and the associated diplomatic impacts. Because the United States had set a 14-year precedent of sending a battalion of AC peacekeepers to the Sinai, Egypt and Israel had to concur on the proposed change to include RC soldiers. Thus, analyses of each personnel position in the battalion were made to balance Egyptian and Israeli concerns with

2 If the IRR is included, 68% of the Army is in the RC.
3 This is the national security goal of President Clinton's "Bottom-up Review" (State Department, 1994).

the goals of the test without compromising mission performance. It was ultimately decided that the final composition of the battalion was to be 80% RC and 20% AC, with leadership positions equally divided between the two components. This resulted in a composite battalion in which half of the squad leader and above positions and nearly all junior enlisted positions were filled by RC soldiers. They would serve as the 28th Rotation of U.S. soldiers fulfilling our commitment to the Treaty.

THE MISSION

In accordance with the MFO charter, the mission was to observe and report violations to the 1979 Treaty of Peace signed by Egypt and Israel as a result of the Camp David Accords.[4] This Treaty stipulated the phased withdrawal of Israel from the Sinai, which Israel had occupied since the 1967 Yom Kippur War, and reestablished the prewar boundaries set in 1948 by the United Nations. Recognizing the potential for violence, Egypt and Israel agreed in the Treaty to have a multinational force monitor their compliance with the terms of the Treaty. In 1979, both countries had expected the United Nations to provide the required multinational force. The United Nations, however, was unable to agree to the commitment, and in 1981 a new organization outside of United Nation's purview was established to provide it. The resulting MFO organization is funded by equal contributions from Egypt, Israel, and the United States and is headed by the Director General located in Rome. (For a more complete historical account see Quandt, 1988; Rabinovich, 1980; Segal & Segal, 1993; Tabory, 1986.)

As stipulated in the Treaty, the Sinai was divided into four zones. Progressively tighter restrictions on the amount and type of weaponry permitted were established for each zone, with the most restrictions applying to Zone C which encompasses the boundary line between the countries, as shown in Figure 1-1. The MFO monitors Zone C, whereas a Civilian Observer Force monitors Zones A, B, and D.

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4 The Treaty of Peace, and its 1979 and 1981 Protocols, are printed in their entirety in MFO (1993).

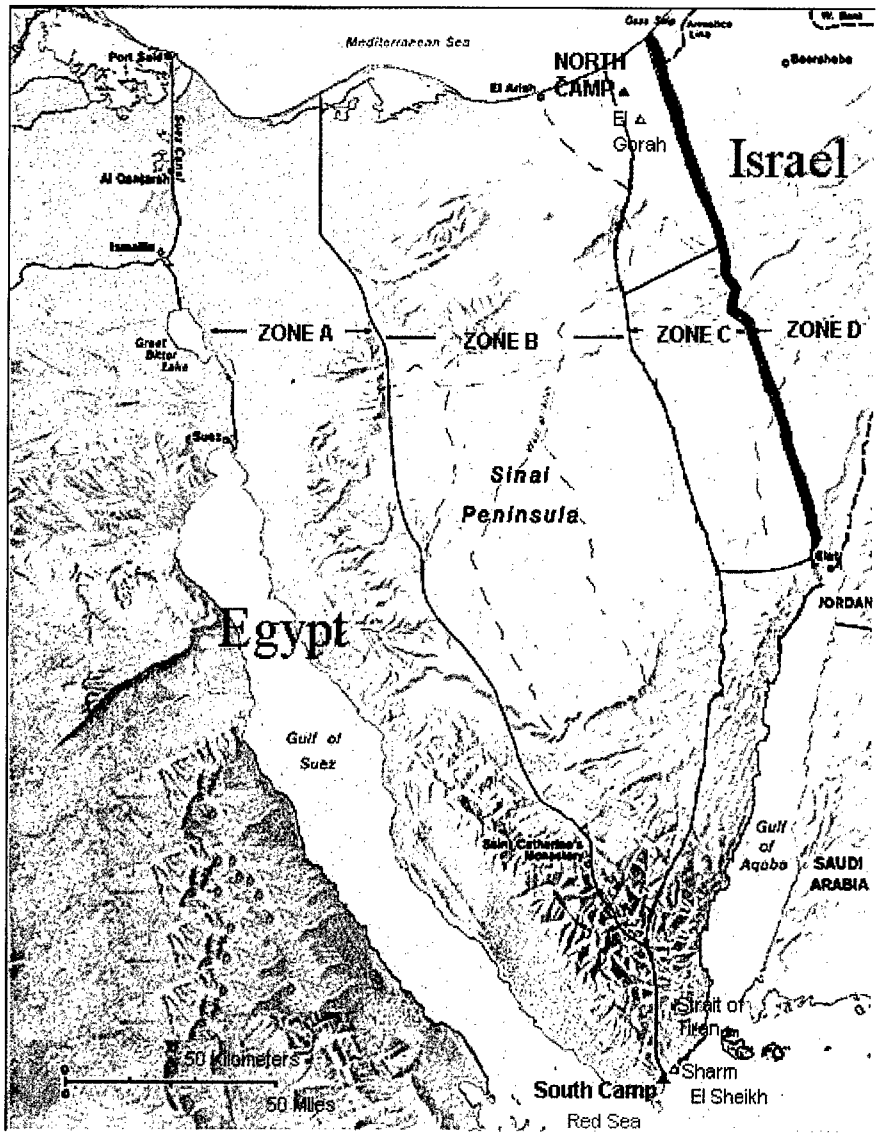

Figure 1-1. According to the protocol only limited military presence is permitted in Zones A, B, and D. The MFO covers the entire Zone C stretching from the Mediterranean in the north to the Red Sea in the south.

The Commander of the MFO forces in the Sinai is headquartered at North Camp, which is located near El Gorah. Because Zone C stretches the entire north-south length of the Sinai, the Commander of the southern most of the three battalions within Zone C is headquartered at South

countries participating in the MFO: Australia, New Zealand, France, Norway, Columbia, Fiji, Italy, Hungary, Canada, Uruguay, and the United States.

The United States contributes an infantry battalion task force that is based at South Camp and is responsible for the entire southern portion of Zone C.[5] The first U.S. troops arrived in the Sinai on 20 March 1982, and the mission officially began on 25 April 1982 (MFO, 1993). Since then, the United States has deployed an AC infantry battalion, typically from the XVIII Airborne Corps, for 30 6-month rotations. The battalion's mission is to observe the area immediately surrounding each of 13 observations posts, check points, and sector control centers from an observation tower and to provide routine vehicular patrolling of the area. All activities, vehicles, aircraft, and seacraft observed in the designated area are identified and reported to the battalion headquarters at South Camp. Reports that warrant follow up as possible treaty violations are further reported to MFO headquarters at North Camp.

Mission execution requires deployment of a squad to each observation post, check point, and sector control center for 3 weeks and then return to South Camp for 3 weeks. This cycle is repeated four to five times during the 6-month rotation. Each squad lives 24 hours a day at its remote site. Platoon leaders and company commanders live at the sector control centers, which vary in distance from their associated observations posts and check points. Some are located within 15 minutes by ground of South Camp, whereas others are only accessible by airlift. Some are located in the sparsely populated desert, some in the mountains, some along the Red Sea, and some inland.

As shown in Figure 1-2, each remote site has two air conditioned modular shelters, one for housing and the other for operations, mess, and day room activities, as well as utility buildings, a weight lifting area, outhouse facilities, underground camouflage bunkers, and an observation tower. Chain-link fence with concertina wire surrounds each site. Soldiers at some sites are not permitted to leave the compound because

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5 In addition, the United States contributes a logistical support battalion, headquartered at North Camp, that serves both North Camp and South Camp. A small element is also provided to support the MFO Force Commander's staff. No data from these soldiers are included in this book.

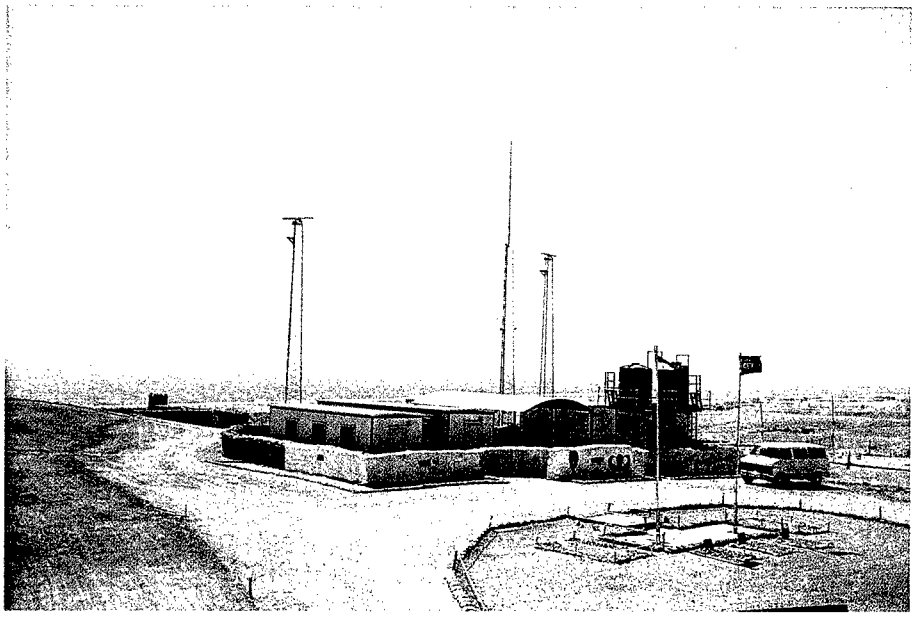

Figure 1-2. Remote observation post overlooking the Gulf of Aqaba and the Sinai desert.

Soldiers at some sites are not permitted to leave the compound because there are live land mines scattered throughout the Sinai. These mines migrate unpredictably with the shifting sands and occasional winter floods.

The primary duties of the squad at each remote site are to observe civilian and military activities in the surrounding area, file routine reports, and notify South Camp of potential treaty violations. Typically, a soldier performs observation duty from the tower for 2-3 hours before being relieved. Squad members must also provide for their own needs (e.g., meals, physical fitness and mission training, and recreation) as well as conduct site maintenance. After 3 weeks, the squad returns to South Camp. Here it takes rest and recreation (R&R), receives additional training, and serves on the 24-hour emergency Quick Reaction Force.

Most services and facilities, although on a small scale, are available at South Camp. These include limited university courses, a library, baseball diamond, soccer field, tennis and basketball courts, weight training facilities, force exchange, laundry, barbershop, and travel agency. Mail is usually delivered three times each week. Commercial

personal calls. The area around South Camp has been commercially developed into a small resort, largely frequented by Europeans, with night clubs, water sports, and shops. The availability of the resort facilities to U.S. soldiers varies depending on the policies and training schedules set by the battalion and company commanders.

Because both Israel and Egypt have honored the terms of the Treaty with no violent incidents, the physical threat in the Sinai is relatively low. Terrorism is always a potential, but to date there have been no attacks targeted against MFO soldiers in the Sinai. Most injuries and illnesses are due to reactions to local food and water, dehydration from extreme heat, and diving accidents in the Red Sea (Rothberg, Harris, Jellen, & Pickle, 1985; Gambel, 1995). Because ground traffic is hazardous as a result of poor road conditions and unpredictable driving habits of the local population, soldiers are not permitted to drive after dark without special command approval. Perhaps the biggest challenge is the psychological effects of boredom and confinement that may lead to low morale, micromanagement and interpersonal conflicts (Harris & Segal, 1985; Segal & Segal, 1993; Litz, 1996).

THE RESEARCH QUESTIONS

Because the strategy of deploying a composite battalion of primarily RC volunteers for peacekeeping operations is unique, the results of the present test could not be predicted from past research conducted with AC-only battalions (e.g., Segal & Segal, 1993). There are three conditions which make this deployment unique: (a) the AC and RC were combined in the same unit, (b) the unit was assembled from individual soldiers who had not served together, and (c) the volunteers came from states across the country. The first condition is potentially problematic because there is an historical undercurrent of doubt about RC capabilities, especially regarding successful conduct of overseas missions (Binkin & Kaufmann, 1989; Boland, 1970; U.S. General Accounting Office, 1991; 1995; Mahon, 1983). This doubt, coupled with the fact that these soldiers had not served together before, may have negative effects on morale, unit cohesion, and squad performance. The third condition, the widely distributed home states, could make the coordination for recruiting, screening, and selection of volunteers as well as the support of

their families more difficult than for an intact unit stationed at a single installation.

Our research focused on the impact of these three conditions on personnel, training, and family support requirements for the deployed unit, the soldiers' spouses, and the RC unit that sponsored the volunteers. The specific questions we asked are organized under the five areas listed below.

1. Personnel: Questions related to personnel asked how was the recruiting and screening process conducted, did it produce enough qualified volunteer RC soldiers, could it have been improved (and how), who volunteered and why, and what did volunteers expect to gain from their peacekeeping experience.

2. Training: Questions related to training asked how was training conducted in preparation for and during the mission, did this process produce proficient soldiers able to accomplish the mission, could training have been done better, and if so, how.

3. General Attitudes and Perceptions: Questions in this area asked what soldiers thought about participation in the test battalion, whether their expectations were met, what the mission's effects were on soldiers' civilian and military careers and families, and how did these effects impact soldier willingness to volunteer for other missions in the future.

4. Family Support: Questions related to family support asked what was the family support system, did it serve the soldiers' and spouses' needs, how could it be improved, and how serving in the Sinai affected quality of marriages.

5. RC Home Unit Impact: Questions related to home unit impact asked what effect the loss of volunteers to the Sinai mission had on the sponsoring ARNG division in terms of personnel, training, and readiness.

ORGANIZATION OF THE BOOK

The book is organized into seven sections, corresponding to the five general areas listed above, plus an initial section that provides background, defines the research questions (Chapter 1) and describes the

methods, procedures, and data collection instruments used in the overall conduct of the research (Chapter 2) and a final section that provides conclusions and recommendations for future use of the RC in other peacekeeping missions (Chapter 17).

In Section Two (Personnel), Chapter 3 describes the psychological characteristics of soldiers who have participated in peace missions, based on the findings of past research on previous Sinai rotations as well as other peace missions. Chapter 4 describes the procedures used by the RC to acquire qualified volunteers for the Sinai mission and provides recommendations for improvements that could be made to these procedures in the future. Chapter 5 presents a demographic description and personnel profile of the soldiers. Chapter 6 discusses soldiers' reasons for volunteering, their expectations about the experience, and their personal goals during the deployment.

In Section Three (Training), Chapter 7 describes the research conducted to measure soldier performance during the Sinai mission. Results based on the performance measures that were developed appear in both this chapter and the next. Chapter 8 describes the background of the soldiers, the training they received, and a longitudinal analysis of their demonstrated skill proficiency as measured from the start of predeployment training through deployment in the Sinai. This chapter also contains soldier reactions to the classes that they were offered for the first time via satellite from the United States. Chapter 9 describes and evaluates the Infantry Leaders Course that was specially designed for this mission and attended by most of the leaders prior to deployment.

In Section Four (Attitudes and Perceptions), Chapter 10 describes the level of unit cohesiveness perceived by squad level soldiers, whereas Chapter 11 focuses on the attitudes and perceptions of the soldiers who held leadership positions. Both Chapters 12 and 13 describe the perceived impact of volunteering for, or being assigned to, this mission on soldiers' personal lives. Chapter 12 also discusses how well soldier expectations were met and the how their peacekeeping experience affected their career commitment. Chapter 13 describes the financial impact of the mission and its relation to soldier intentions to remain in the Army.

In Section Five (Family Support), Chapter 14 describes the support system that was put in place to assist the families left behind in communities across the country as well as at major military installations. In addition, this system is evaluated with recommendations for future deployments. Chapter 15 discusses the impact on the quality of marriages.

In Section Six (Home Unit), Chapter 16 describes the personnel, training, and readiness impacts experienced by soldiers in the sponsoring ARNG division that provided the majority of the volunteers for the Sinai mission.

In Section Seven, conclusions and recommendations for future use of the RC in other peacekeeping missions concludes the main body of the book (Chapter 17). We also include an appendix for those readers who might be interested in specific soldier comments.

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2

RESEARCH APPROACH

Ruth H. Phelps

INTRODUCTION

From its inception, the use of the Reserve Component (RC) to fulfill the U.S. Multinational Force and Observers (MFO) peacekeeping commitment in the Sinai was meant to be a test. The Chief of Staff guidance was specifically to study the Army's ability to obtain RC volunteers, train them, execute the mission, and determine the impact of removing citizen soldiers from their units, civilian jobs, and families. In short, it was to be a testbed. This direction gave the Army the rare opportunity to actually design a research program *before* the execution of the mission instead of taking advantage of targets of opportunity or gathering lessons learned after the mission.

The purpose of this chapter is to provide a general overview of the approach used for the assessment of the composite unit serving as the 28th U.S. Rotation to the Sinai. Emphasis in this chapter is on the big picture: the general design and time line, the different populations of participants, and the various types of data collected and their supporting instruments. Most of the subsequent chapters focus on the soldiers of the 28th Rotation. However, in some chapters, the focus is on the spouses of the soldiers, the military and civilians who supported or trained the soldiers, and also the RC units from which these soldiers were drawn. Details on subpopulations will be presented within the appropriate chapters themselves.

THE RESEARCH PARTICIPANTS

As discussed in Chapter 1, the empirical assessment of using an Active Component (AC)/RC composite unit for the MFO mission covered a series of research questions concerning the predeployment recruiting and training process; training, performance, morale, unit cohesion, and family support during the deployment; and postredeployment impacts on the soldiers and families, including civilian and military careers and attitudes toward future volunteerism. In addition, the positive and negative impacts of losing soldiers from their home RC units and their subsequent return to those units were assessed to determine the effects on unit readiness, training, and morale.

To answer these questions, the entire 28th Rotation was tracked longitudinally from the time the soldiers were recruited until they were released from active duty and returned to their homes. The number and type of positions (with minor deviations such as a larger rear detachment to handle family support) were similar to all the other MFO rotations. However, as shown in Figure 2-1, the 28th Rotation was composed of 80% RC and 20% AC members; half of the noncommissioned officer (NCO) and officer positions were assigned to AC and half were assigned to RC soldiers. These constraints, imposed by the Army specifically for this test, resulted in squads of nearly 100% RC soldiers, half with AC leaders and half with RC leaders. Although the Battalion Headquarters was also half AC and half RC, the key positions of Battalion

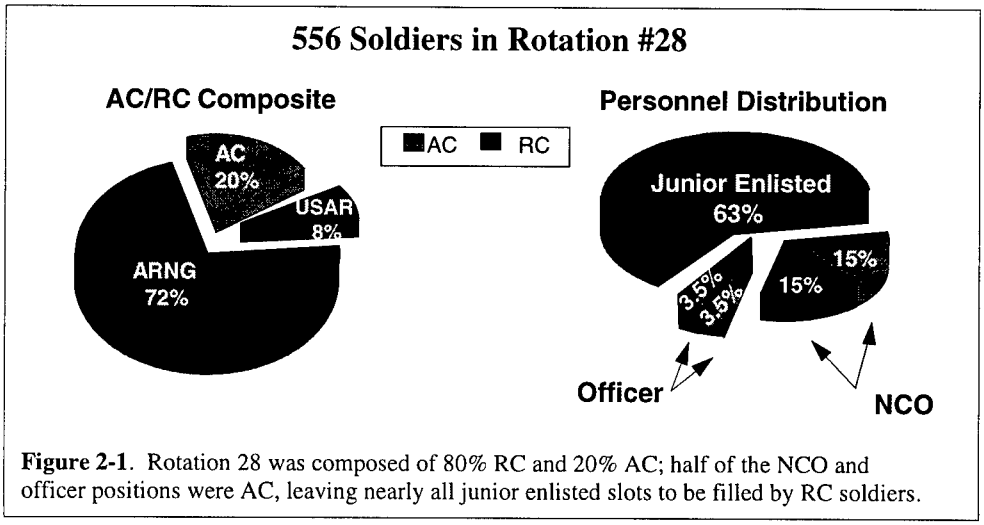

Figure 2-1. Rotation 28 was composed of 80% RC and 20% AC; half of the NCO and officer positions were AC, leaving nearly all junior enlisted slots to be filled by RC soldiers.

Commander, Command Sergeant Major, and Operations Staff Officer (S3) were AC. Nearly every soldier, regardless of rank, position, or component, deployed to the Sinai or in the rear detachment, was tracked throughout the entire assessment.

To get a total perspective, data were also collected from spouses of soldiers in the 28th Rotation, soldiers who functioned as trainers, and soldiers and civilians who provided support for families or performed in key roles within the family support system (e.g., the American Red Cross, Army National Guard [ARNG] state family coordinators). As shown in Figure 2-2, the sponsoring RC unit, from which the majority of the volunteer soldiers were drawn, was simultaneously tracked from predeployment through redeployment to determine the effects on the home unit of losing the volunteers. Only data collected before redeployment are reported in this book.

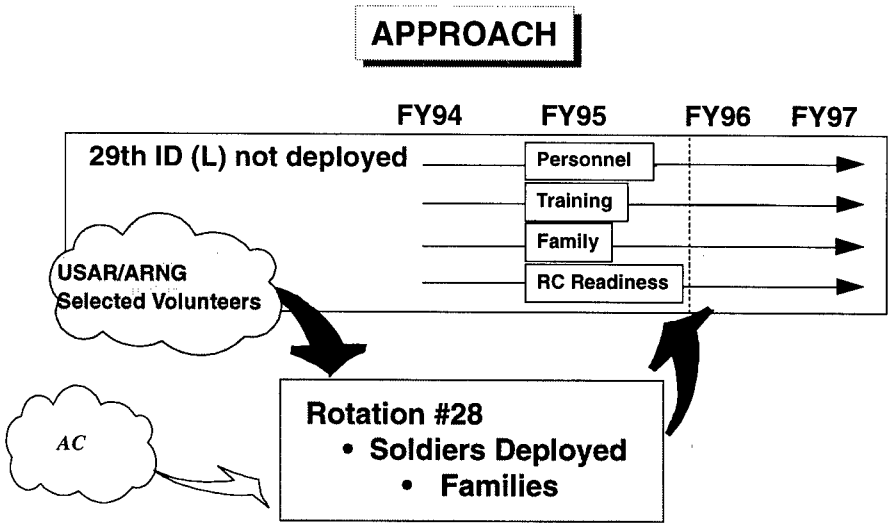

Figure 2-2. Rotation 28 RC soldiers and families were studied prior to reporting for duty in 1994, during deployment and post-redeployment through 1997. Note that the 29th ID(L) soldiers who did not deploy were studied over the same timeframe.

Reference and baseline data were gathered from a recent all-AC rotation using data collection instruments similar to those used for the 28th Rotation. In addition, the data were collected for both rotations at approximately the same time during the predeployment preparation as

well as during the deployment itself. This allowed both a comparison of attitudes and performance at similar times during the rotations and the identification of characteristics of all MFO rotations not unique to the composite unit. Informal data were also collected from the 24th, 25th, and 26th Rotations to support the design and pilot test the data collection instruments.

Thus, the research design was a longitudinal case study of personnel and training issues affecting five different populations of participants: (1) RC and AC soldiers in the 28th Rotation, (2) spouses of the 28th Rotation soldiers, (3) soldiers and civilians who provided training and support, (4) soldiers in a recent all-AC rotation, and (5) RC soldiers and leaders from the sponsoring ARNG unit. In the following chapters, depending on the subject matter, findings for various combinations of these populations are reported; e.g., some focus exclusively on the 28th Rotation soldiers, while others combine findings from spouses, the recent all-AC rotation, and/or the RC sponsoring unit. Identification of the specific populations being reported will be made in the individual chapters.

DATA COLLECTION TIME LINES

The entire research program was designed to parallel the predeployment, during deployment, and postredeployment flow of events of the 28th Rotation. This section describes the time line of the unit's events and the corresponding data collection dates. Because both the time line and the process used to recruit RC volunteers were different for soldiers from the ARNG and the U.S. Army Reserve (USAR), the data collection dates and the types of data collected were different. However, once the composite unit was formed, all soldiers followed the same time line and responded to the same research instruments under the same conditions regardless of component.

In keeping with the tradition of deploying light infantry or paratroopers for the Sinai mission (Segal & Segal, 1993), the ARNG initially recruited soldiers from its only light infantry division, the 29th Infantry Division (Light) (29th ID[L]). Recruiting began unofficially in the fall of 1993 and officially during the winter of 1994. Primarily located in Maryland and Virginia, the 29th ID(L) held an all-day

orientation session in each state for volunteer soldiers and their families. These sessions gave the soldiers and their families the opportunity to meet the Battalion Commander, his wife, and the primary battalion staff, and receive personnel and family support information and counseling on soldier preparations, such as designation of powers of attorney.

The USAR began recruiting in March 1994 from the pool of Individual Ready Reserve soldiers. A 2-week screening and training session was held in June 1994 at Fort McCoy, WI, with follow-up recruiting from the USAR Troop Program Units, as needed, through October 1994. We observed and documented both the ARNG and USAR processes, collecting data as opportunities permitted from soldiers, families, and trainers.

The primary data collection times, relative to the deployment date (D) for the 28th Rotation and a recent all-AC rotation, are shown in Figure 2-3. Note that for the different waves of data collection, the location and types of data varied along the total time line.

The Battalion Commander and the Company Commanders and their staffs reported for duty between February 7 and May 2 at Fort Bragg, NC. The remaining NCOs and officers (both AC and RC) reported for duty on August 8, 1994, whereas the junior enlisted (E-4 and below) soldiers reported at Fort Bragg on October 2, 1994. Most NCOs and officers attended the Infantry Leaders Course (ILC) at Fort Benning, GA, from August 27 to September 24, 1994. Once the junior enlisted soldiers reported for duty in October, there was intensive predeployment training culminating in an evaluation by personnel outside the battalion in December 1994. The battalion was deployed from January 7 to July 23, 1995. The unit was formally activated on November 4, 1994 and deactivated on July 28, 1995.

Data were also collected from the other three populations (spouses, trainers/support personnel, and the sponsoring RC unit) at strategic times throughout the predeployment, deployment, and postredeployment of the 28th Rotation. We collected data from the spouses during the recruiting process as well as both early and late in the deployment itself. Trainers from the ILC were interviewed/surveyed both during the course and 2 months later. We collected data from family support providers throughout the entire time line. The sponsoring RC unit responded to

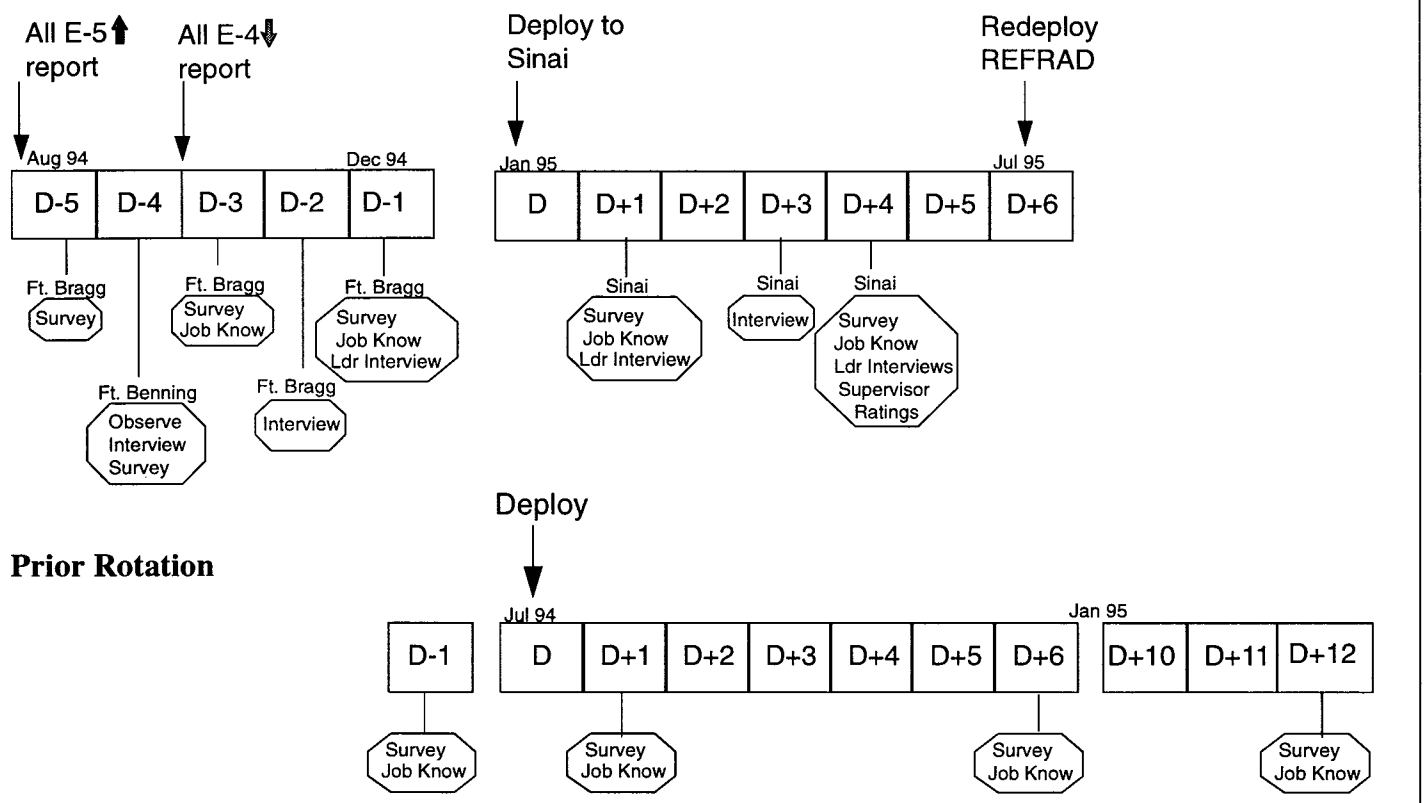

Figure 2-3. The top time line shows the places and type of data collected relative to the deployment date (D); e.g. 5 months prior to deployment (D-5) all E-5 and above soldiers reported for duty and were surveyed at Fort Bragg. The bottom time line shows the parallel data collection times for a recent prior all-AC rotation.

surveys and interviews during the deployment and postredeployment. Details on these three populations will be presented in their respective chapters.

RESEARCH INSTRUMENTS AND THEIR ADMINISTRATION

Data were collected from all five populations using both informal methods (discussion, observation, and unit records) and formal methods (surveys, interviews, job knowledge tests, and supervisor ratings). An overview of the instruments and their administration is presented in this section whereas the details for instruments used for the four other populations are described separately in the appropriate chapters.

The Soldier Surveys

The entire battalion (both AC and RC) was surveyed four times: (1) upon arrival at Fort Bragg (August 1994 for E-5 and above and October 1994 for E-4 and below) (n=522); (2) at the end of predeployment training (December 1994) (n=340); (3) 1 month into the deployment (February 1995) (n=305); and (4) 4 months into the deployment (May 1995) (n=443). For each wave, soldiers were brought to a large room (e.g., gymnasium, classroom) and given background on the purpose of the survey; instructions for completing the survey; and pencils, survey booklets, and answer sheets. Soldiers spent approximately an hour responding to the survey; they brought their materials to a researcher who checked each survey for completeness. The soldiers were then released to their Officer In Charge. The number of survey questions varied between 198 and 226 for the different waves; questions were organized into four topic categories: civilian/military and family background and experiences; training; cohesion/climate; and attitudes about the Army. Because not all items applied to every soldier, some analyses are based on fewer cases than the maximum sample sizes reported above.

The Background and Experiences Survey. These questions focused on demographic and financial information, reasons for volunteering, civilian and military career intentions, expectations of the impact of volunteering on their civilian/military careers and their families, as well as what their actual experiences were. These items were used to

determine the characteristics of volunteers and how their expectations of the experience were met or not met, and to what degree their expectations and experiences changed over the course of predeployment and during deployment for both the soldiers themselves and their families.

The Training Survey. Training questions were designed to determine each soldier's civilian and military background as well as document their training experiences during predeployment and deployment phases. Because many soldiers move among Regular Army, ARNG, and USAR status, soldiers were asked to indicate their military histories in each component. Other training questions were on Military Occupational Specialty qualification, experience at Combat Training Centers, and prior deployments; they were also asked their opinions on the physical difficulty/demands of the MFO mission and the efficacy of the training they received. The surveys that were administered to soldiers participating in the ILC focused on quality, content, and execution of the training.

The Cohesion and Climate Survey. Additional soldier questions were asked to determine the level/stability of unit cohesion and climate. Items concerned the soldier's family, satisfaction with the unit's performance, personal performance, leadership performance, and treatment of the soldiers. These questions were modifications of previously used ARI surveys (Siebold, 1994; Siebold & Lindsay, 1994).

The Soldier Interviews

Soldiers were interviewed to obtain more detailed information in areas such as leadership, morale, and family support. They were interviewed on five separate occasions, as shown in Figure 2-3. We interviewed a total of 71 soldiers in squad leader positions and higher in all companies 1 month prior to deployment, then 1 month (n=52) and 4 months (n=75) into the deployment. Interviews were always conducted privately with an individual or a small group of same-grade soldiers; supervisors were never present for subordinate interviews. Questions focused on perceived impact of MFO experience on military career, job duties, treatment by the leadership, AC/RC differences, expectations about recreational and educational opportunities, and attitudes about the MFO mission.

Job Knowledge Tests

Individual soldier paper-and-pencil tests used to assess the amount and type of knowledge of both common tasks and MFO-specific tasks were either newly developed or drawn from previously developed U.S. Army Research Institute for the Behavioral and Social Sciences knowledge tests (Campbell & Zook, 1991). Job knowledge tests were administered three times to soldiers in squad leader and below positions: 1 month prior to deployment (n=448) and then 1 month (n=309) and 4 months (n=308) into the deployment. Administration conditions were the same as for the surveys. Examples of the 42 common soldier tasks are: estimate range, maintain M16A2 rifle, send radio message, administer first aid, and perform self-extraction from a minefield. Examples of the 57 MFO tasks are: describe zonal structure of the Sinai, identify Arab Republic of Egypt forces, and follow rules for use of force and employment of firearms.

Supervisor Ratings

MFO-specific performance rating scales were developed to assess supervisor perceptions of soldier performance in executing the mission. Fifty-seven supervisors rated 228 soldiers 4 months into the deployment on 10 dimensions clustered into three factors: "Job Relevant Skills and Motivation," "Personal Discipline," and "Physical Fitness and Military Bearing." These scales were based on an identification of the dimensions that make up successful and unsuccessful performance in the Sinai. The dimensions, however, were defined by an analysis of MFO background information and critical incident interviews with NCOs who served in prior MFO rotations.

SUMMARY

The overriding theme for the research approach was to capture how soldiers and their spouses reacted to the Army's attempt to use volunteer soldiers from the RC in a peacekeeping mission. We were both the "fly on the wall" as well as the formal surveyor, interviewer, and tester. We either modified existing research instruments or developed new ones

better suited to this mission and its unique AC/RC composition. Instruments were administered throughout the recruiting, predeployment training, and the deployment in the Sinai. The Army's explicit intention to use this rotation as an experiment allowed us greater access over a longer time period than is typical of behavioral research, providing more in-depth data as well as extensive on-the-ground experience for the research team.

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SECTION 2

PERSONNEL

Because this unit was composed largely of Reserve Component (RC) volunteers, there were special personnel concerns that would not have normally been an issue with an all-Active Component (AC) unit. The personnel goal was to fill all the RC slots in the 28th Multinational Force and Observers (MFO) Rotation with qualified volunteers. The challenge was to recruit and screen 446 junior enlisted soldiers, noncommissioned officers, and officers from the Army National Guard, and both the Individual Ready Reserve and Troop Program Units of the U.S. Army Reserve.

Chapter 3 opens the section with the identification of the individual personnel attributes important for peacekeepers. Mael, Kilcullen, and White define 22 attributes derived from previous literature and new data collected specifically on the MFO mission. They also hypothesize about how these attributes may be more and less fostered by the RC environment.

In Chapter 4, Palmer, Rumsey, Smith, and Wisher describe the process used by the RC to recruit and screen the volunteers from across the country. Their assessment of the success of that process highlights lessons that can be applied to future use of RC volunteers for either the MFO or other peace missions.

Chapters 5 and 6 concentrate on the MFO soldiers' individual background and motivations. Farr (Chapter 5) describes personnel profiles of soldiers, including their demographic background, civilian employment experience, and military experience. In Chapter 6, Oliver, Tiggle, and Hayes conclude Section Two with a description of why soldiers volunteered and their expectations of the upcoming MFO experience when they first reported for duty.

3

SOLDIER ATTRIBUTES FOR PEACEKEEPING AND PEACEMAKING

Fred A. Mael
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INTRODUCTION

In recent years, the U.S. has committed increasing resources and attention to nonwar involvements overseas, including peacekeeping and peacemaking operations. These missions represent a departure from traditional U.S. warfighting doctrine (Eikenberry, 1993; Hillen, 1993; Janowitz, 1960; Van Creveld, 1991). Peacekeeping may also require a different mixture of skills or techniques by U.S. soldiers (Segal & Segal, 1993). In turn, the requisite attributes that would be optimal for peacekeeping may be different than those typically sought in either the combat or combat support branches of the military. Thus, information about desired attributes would be useful, whether it was to be used for initial or secondary selection, or used to shape training goals.

However, in spite of this U.S. move toward more peacekeeping-type engagements and the longstanding involvement of other nations in peacekeeping missions, little is being done to determine the attributes needed for peacekeepers. In a review of other countries' programs, Grandmaison and Cotton (1993) noted that only Austria had a program designed specifically to screen candidates for peacekeeping (Lohwasser, 1993). Moreover, Eikenberry states that "reliable reports of gross corruption and incompetence continue to emanate from Bosnia and Cambodia" (1993, p. 17). In recent years, allegations of the torture and murder of a Somali national by Canadian peacekeepers has increased

Canadian concern for psychological screening of peacekeepers (Grandmaison & Cotton, 1993). Interest in individual differences and desired attributes may take the form of either screening out undesirable characteristics or highlighting needed qualities, either through selection or training.

In this paper, we describe the development of a model of individual characteristics thought to be relevant to performance in peacekeeping missions. These attributes were identified based on a search of the literature and discussions with subject matter experts from the United States and other countries. In conjunction with this broader model, we describe a small job analysis demonstrating the likely relationship of these attributes to performance in the Multinational Force and Observers (MFO) Sinai and other peacekeeping missions.

Of course, no two peacekeeping missions are exactly alike. Peacekeeping in countries such as Somalia and Bosnia is far different from peacekeeping in MFO Sinai, where very little activity takes place and contact with possible belligerents is virtually nonexistent. It is also true that the scenarios encountered by peacekeepers within a particular mission are not always foreseeable. The U.S. experience in Somalia began as a humanitarian effort to end hunger and evolved into combat operations involving both defensive and offensive maneuvers. A key distinction is whether the involvement of troops is in peace**keeping** or peace**making**. Peacekeeping involves maintenance of a situation in which two former combatants have already agreed to peace. Peacekeepers will typically serve as observers or at most as enforcers of an in-place ceasefire. By contrast, peacemakers may be involved in brokering peace, both as adjuncts to diplomatic efforts and through policing of areas in which combatants are still at odds with each other or with the peacemakers themselves. Most missions fall on a continuum between these two types of operations (R.J. Fisher, 1993).

Given the unpredictable nature of these assignments, peacekeeping forces need to be competent in, and prepared for, both types of situations. Therefore, the model described herein lists attributes relevant to performance in both low- and high-intensity peacekeeping environments. Some attributes are likely to be applicable in both scenarios, while others seem relevant to only one situation. Subsequent administrations of the biodata instrument described in this paper should permit an empirical

confirmation of the constructs important within each environment. Of course, it is also possible that both types of constructs could be relevant in peacekeeping missions of an intermediate nature (e.g., Haiti), in which there exists a moderate possibility of combat operations.

Another level of inquiry involves the relative appropriateness of using either Active Component (AC) soldiers, Reserve Component (RC) soldiers, or either in a peacekeeping or peacemaking environment. Stated differently, the question is whether the desired attributes will likely be better represented among AC or RC soldiers, and whether some attributes have different meanings for the two groups. This issue will be discussed in the course of describing the theorized relevant constructs.

We turn now to a description of the peacekeeping constructs described in the model and measured by the biodata instrument. These attributes are grouped according to their anticipated situational relevance.

Tolerance for Boredom

Some aspects of the peacekeeping job, especially monitoring a ceasefire, involve extreme tedium, punctuated by rare moments requiring peak alertness. The peacekeeping role in the MFO Sinai, where there has been a longstanding lack of overt hostilities; where the two sides are geographically separated by a rarely entered buffer area; and where peacekeepers rarely interact with indigenous persons, much less with armed combatants, has been identified as an environment in which soldiers are particularly vulnerable to boredom (Segal & Segal, 1993). In this respect, peacekeeping is not unique. Work environments in which there is quantitative underload, lack of variety, and lack of challenge tend to be perceived as very boring (Caplan, Cobb, French, Harrison, & Pinneau, 1975). Those who successfully perform similar jobs (jail guards, security officers/night watchman, lifeguards) also need to have some level of tolerance for boredom.

However, in addition to task effects, there are individual differences in tolerance for boredom, as well as differences in the tendency to become bored. There is some indication that males, younger persons, and those of higher intelligence and educational attainment are more likely to be bored in monotonous jobs (Drory, 1982). There is

contradictory evidence on the relationship of extroversion to boredom. Some research has shown that extroverts need more stimulation and are thus bored more easily on monotonous tasks than introverts (Gardner & Cummings, 1988). Conversely, boredom has been identified as a symptom of loneliness and depression, both of which are correlated to some degree with introversion (Rubenstein & Shaver, 1982). In addition, introverts are more distractible, leaving them more prone to boredom in some situations (Damrad-Frye & Laird, 1989).

Although there are empirical measures of proneness to boredom (Farmer & Sundberg, 1986), the greater concern for peacekeepers is the *tolerance* for boredom, the ability to cope with the effects of an objectively unstimulating task or environment without feeling agitated. Finally, being bored should not be confused with being a boring person, as judged by others in interpersonal contact (Leary, Rogers, Canfield, & Coe, 1986).

Boredom which is not dealt with constructively could have a number of negative effects in the peacekeeping environment. For the junior soldier, a response to boredom could be a lack of attention to one's work, as expressed in daydreaming or writing letters (C.D. Fisher, 1993; Kishida, 1977) that would defeat the whole purpose of manning an observation post. On the other hand, boredom among officers could lead to micromanagement of subordinates (Kiechell, 1984), a problem that has been mentioned in interviews with previous members of MFO Sinai missions. Finally, other negative consequences of prolonged, poorly tolerated boredom include job dissatisfaction, absenteeism, increased risk of accidents, health problems, stress, and increased drug and alcohol abuse (Caplan et al., 1975; Drory, 1982; C.D. Fisher, 1993; Hamilton, 1983; Orcutt, 1984). Thus, tolerance for boredom would be an important coping mechanism in the MFO Sinai mission, although the soldiers specific role would be relevant as well.

In the current research, tolerance for boredom as well as the ability to cope with various situational components that Harris, Rothberg, Segal, and Segal (1993) viewed as aggravating or compounding boredom problems were investigated. The first is the persons' tolerance for extended periods of *isolation*, when one is expected to spend long hours in an observation post virtually alone, as well as isolation from one's family. Harris et al. also viewed sensory deprivation and occasional

concomitant time and space disorientation in the unchanging desert as another, unspoken factor in the sense of isolation. The second component is ones tendency to get frustrated from the sense of *underutilization* of one's skills or cultural deprivation. These feelings tend to vary, depending upon whether ones role in the mission was primarily observation or whether it was more typical of other assignments, such as cooks and those involved in supply and transportation. The third is one's need for *privacy*. Because the MFO is located in a remote desert, the ability to "go into town" or find another way to simply leave the company of others may be limited. The sense of constantly being among others may grate on some individuals, especially introverts or loners who are uncomfortable with steady camaraderie. Another possibility is that the soldier's unit may resent loners more in this environment that they would otherwise, making the loner a liability to others.

Organizational Identification

Identification is defined as a cognitive perception of oneness with the defined aggregate of persons, involving the perceived experience of the group's successes and failures (Kelman, 1961; Mael & Tetrick, 1992; Tolman, 1943). Identification with one's work organization and its mission has long been recognized as an important component in one's sense of satisfaction and belonging, in one's propensity to attrit, and in the quality of one's interactions with other organizational members (Ashforth & Mael, 1989; Brown, 1969; Mael & Ashforth, 1992, 1995; Patchen, 1970). In military settings, identification with one's unit and mission has been shown to be related to job involvement, intent to remain in the Army, motivation to succeed in one's current mission, and cohesion with the members of one's unit (Mael & Alderks, 1993). There is some evidence that there are individual differences in the propensity to identify with one's group or organization across different situations (Cox, 1985; Mael & Ashforth, 1992, 1995; Rotondi, 1975). For the current research, it was hypothesized that given the various stresses involved in the MFO mission and in peacekeeping in general, it would be useful for a soldier to have a strong identification with the MFO, with the mission, and with the U.S. Army as a whole.

In the current context, it would be of interest to determine if the organizational identification of RC members differs from that of AC members. It is conceivable that the loyalties of the Army National Guard (ARNG) personnel would be somewhat conflicted between allegiance to the state guard and the U.S. Army as a totality. In turn, the differing allegiances of the members of a mixed RC/AC unit could make for lack of shared identity, if not friction (Mael & Palmer, Chapter 11). Thus, clarifying the joint identities and identification of such a unit embarking on peacekeeping could be an important goal of the predeployment training period.

Team Commitment

In addition to commitment to the Army and its mission as a whole, a separate importance is associated with one's commitment to work for the good of one's immediate team. Team commitment reflects the degree to which the individual is concerned with the unit's welfare and his/her willingness to help other soldiers. Individuals scoring high on this scale express and act upon concerns for the personal well-being of other soldiers in their unit. Their help is valued and relied upon by other soldiers in time of need.

The team commitment expressed by individual members of a team or unit must lead inexorably to increased unit cohesion, which is in turn associated with increased soldier morale (Manning, 1991; Manning & Ingraham, 1987; Solomon, Mikulincer, & Hobfoll, 1986). In the MFO Sinai, where most actual observation work is performed at the team level, as opposed to the squad or platoon level, the commitment of individuals to the literal team is important. In more active peacemaking operations team commitment becomes critical because of the need for coordinated action. Moreover, veterans report that acts of bravery and self-sacrifice in combat stem largely from the individual's concern for the welfare of his comrades.

As mentioned above, RC and AC members of a mixed unit may differ in how they conceive of their personal identities as Army soldiers and as members of a peacekeeping unit. Moreover, individuals from the two groups may differ in their personal career identities: AC soldiers are likely to see themselves professionally as "soldiers," with their financial,

geographical, social, and familial decisions heavily influenced by the demands of career progression within the AC. By contrast, the RC member may see himself or herself primarily as a lawyer, policeman, or security guard, and as a member of a local community who is merely taking a career and communal "sabbatical" by joining a peacekeeping mission. This lack of shared concerns and shared identity could limit interpersonal empathy and identification, and in turn hamper the ability of such a mixed group to form a cohesive bond (Mael & Palmer, Chapter 11). If this concern is valid, it would suggest the need to build personal bridges of commonality between the members of the two groups. In addition, the severity of these concerns would differ depending on whether the RC component were from an intact or "pickup" group—members of an intact group would be more internally cohesive, but could be more prone to subgroup distancing from the AC members of a mixed unit.

Object Belief

Object belief refers to the propensity to use others as tools for personal gain. Individuals scoring high on this scale are not remorseful about achieving their goals through callous manipulation of others and may be described as ruthless or Machiavellian. It is anticipated that soldiers scoring *low* on this scale will perform better in peacekeeping and peacemaking roles. In peacekeeping missions soldiers with excessive object belief would behave in a self-centered manner, possibly harming morale and unit cohesion. In peacemaking operations this characteristic would have more alarming consequences, particularly among leaders. These individuals may expose soldiers to unnecessary risks solely for their own personal glory. The deleterious effects of such actions can include, at worst, excessively high casualty rates, plus a substantial loss of materiel. The unit's ability to continue as an effective fighting force may be impaired if these losses are severe enough.

Cultural Openness and Cultural Awareness

The advent of the multinational corporation and the increasing tendency of American businesses to set up offices and subsidiaries in foreign countries has led to greater interest in the qualities that predispose a person to show awareness of and sensitivity to members of other

cultures (Evans, Sculli, & Yau, 1987; Mendenhall, Dunbar, & Oddou, 1987). People who violate local conventions or interpret the behavior of indigenous persons from the perspective of their own culture could be serious liabilities to their organizations' goals; however, capabilities in these areas are seldom considered during selection decisions (Harvey, 1983; Tung, 1981, 1987). Moreover, European and Asian multinationals, who spend more time on cross-cultural training, have lower failure rates on expatriate assignments (Tung, 1987).

These concerns are equally true for military operations that involve extensive involvement with indigenous populations or intervention in the lives of indigenous civilians. As such, these concerns would be greatest for such superficially different entities as the Special Forces, peacemakers, and peacekeepers. Specifically, an ability to empathize with indigenous persons that one is bound to protect, without being disturbed by local mores, business practices, or hygiene, would seem to be essential for successful peace operations.

Nevertheless, development of measures that capture cross-cultural awareness and sensitivity has only recently begun. A measure developed by Pruegger and Rogers (1993) is specific to a Canadian context and current Canadian social concerns. Additional work has been done by Caligiuri (1992, 1994). More needs to be done with a referent to openness to, if not tolerance for, living conditions and lifestyles unlike one's own.

During interviews with soldiers who returned from previous MFO Sinai assignments, a distinction was made between cultural *openness* and cultural *awareness*. The former was seen as a tolerance for and willingness to accept the very different behavioral patterns and values of a host country's inhabitants. The latter was seen as simple awareness of those behaviors that would be deemed unacceptable in the host country. An example given was the unacceptability of touching the Muslim women in the adjoining villages, even in the course of offering them medical assistance.

A few notes of caution must be added about the culture-related constructs. Because of the limited previous effort devoted to this topic, optimal paradigms for the study of cross-cultural differences have not yet been formalized. In addition, much of the research into the difficulties of

bridging cultural gaps has been criticized for its presumptuousness and artificiality (Tayeb, 1994). Also, most research has focused on generalized cross-cultural orientations rather than on specific distances between the worldviews of any given cultures or individual differences within a culture in terms of a person's cognitive proximity or sensitivity to a focal culture. Thus, another layer of global superficiality permeates the current research on this topic (Smith, 1992).

The current approach is essentially a search for an interpersonal skill embedded in the person, usable across all cultures, rather than a determination of the likelihood of a successful person-culture interaction. While this approach may indeed be problematic because of the need to deploy soldiers en masse in remote locations, choosing persons on the basis of their location-specific sensitivity would be unrealistic. Thus, the current research focuses on generalized sensitivity to and awareness of cultural differences of one's own American military contingent compared to both indigenous peoples and other nationalities involved in a multinational peacekeeping mission. When a soldier's assignment to a region will be for longer periods, such as the assignment of a Special Forces soldier to a geographically based group, a different approach that uses profile matching might be preferred.

Boundary Spanning Skills and Tolerance for Ambiguity

Boundary role persons (Keller & Holland, 1975; Miles, 1980) have to deal with large amounts of role-conflict and role-ambiguity, as well as distrust by all parties who the person represents or services. In some peacekeeping, boundary spanning could involve serving as an active buffer between the opposing nations or factions in a civil dispute. In some multinational efforts, this could be a problem if the role includes integration with foreign (i.e., UN) commanders or if lines of command between soldiers and U.S. civilians (such as State Department) are blurred. Thus, a specific type of stress tolerance may be required, such as would be measured by tolerance for ambiguity (Budner, 1962; McLain, 1993) and adaptability (Gould, 1979). However, in the MFO Sinai environment, where interactions with others are minimal, tolerance for ambiguity may not be as necessary.

The question of AC/RC differences in cultural openness and awareness, as well as the ability to engage in boundary spanning, is also relevant. Although generalizations are difficult, some RC soldiers have never strayed far from their home states and have certainly been less exposed to persons of different nationalities than would most AC soldiers. Thus, Mael and Palmer (Chapter 11) found that RC soldiers were expected to experience more "culture shock" in the Sinai. However, depending on the homogeneity of their home states' populations and their own lack of contact with different groups, some RC soldiers may have been less exposed to other *American* soldiers of different races and creeds. This could in turn affect their ability to bond cohesively with different unit members of either a "pickup" unit or a mixed AC/RC unit if those units were more culturally diverse than their own RC units.

Rugged Orientation

A basic tenet of biographical data is that past behavior predicts future behavior. The military lifestyle often requires that soldiers spend extended periods outdoors in environments that lack the climate control and amenities of typical dwellings. For this reason, it could be expected that those who have spent time involved in outdoor or rugged activities, such as camping, hiking, hunting and fishing, and wilderness exploration, would be more successful in their adaptation to the military lifestyle. There is evidence for this position as well (Grey, Mael, & Morath, 1995; Mael & Hirsch, 1993; Mael & White, 1994). Cadets at the United States Military Academy (USMA) who had been more involved in rugged and outdoor activities during high school were rated as better leaders during basic training and during the field training that took place at the beginning of their second year at USMA. This finding was confirmed with two successive classes at USMA and with a class of cadets at the Virginia Military Institute. Similarly, Mael and Ashforth (1995) found that participation in rugged and outdoor activities was significantly related to identification with the Army and a lesser probability of 6-month attrition. Moreover, because a rugged/outdoors orientation is unrelated to cognitive aptitude or educational attainment, it provides useful incremental validity over the more common indices of military adaptability. It should be pointed out that in addition to an experiential,

biodata approach, there have been other approaches to outdoors orientation which stress dispositional or vocational/preference-type differences instead (Craik, 1975; McKechnie, 1977). From their perspective, previous involvement in these types of activities would be manifestations of longstanding tendencies, rather than the results of previous acculturation.

As with other constructs considered in this research, the degree of time spent outdoors will vary, depending on the type of peacekeeping mission. Nevertheless, across all soldiers an outdoor orientation was viewed as a useful predictor of the ability to deal with extensive periods spent in the elements.

Physical Endurance and Strength

The measurement of physical abilities needed for job performance has been given relatively little attention in comparison to cognitive and dispositional qualities. Standardized taxonomies of these abilities have only recently been produced (Fleishman & Mumford, 1988; Lopez, 1988). Moreover, physical capabilities which could often be observed, or would be amenable to work samples and tryouts, are often assessed through self-report questionnaires, as was done in the current research (Hogan, 1994). One reason for this may be that the relative ease of paper-and-pencil tests is seen as outweighing the benefits of more realistic testing. However, this state of affairs may also bespeak the relative lack of importance accorded physical ability testing. While physical fitness testing (PT tests) in general are common throughout the military, linking specific types of fitness or physical ability to specific jobs may be less common.

When approaching the role of the peacekeeper, two broad areas of physical capability were investigated. The first is referred to as physical endurance, and has also been described as stamina. The concept of endurance or stamina refers to the ability of the lungs and circulatory system to perform efficiently for extended periods, without having to stop because of lack of breath or muscular fatigue (Fleishman & Mumford, 1988; Hogan, 1991; Lopez, 1988). The second is physical strength, which can be broken into various components, such as static strength (ability to use muscle force for a short period to lift or push objects) or

explosive strength (strength of one's ability to provide short bursts of strength to propel oneself or objects). The concepts of dynamic strength and trunk strength, used by Fleishman and Mumford (1988) to refer to continuous exertion of force without "giving out," seem to combine needs for strength and endurance. Both of these areas— endurance and strength—were examined in regard to peacekeepers. The role of the observer would not appear to require great bursts of strength, either short-term or continuously, unless a soldier were involved in supply jobs. A third category of physical ability, flexibility, was not included in this research.

The relative inferiority of RC soldiers' physical fitness is an empirical question. However, it has historically been assumed to be true by many in the AC community over many years (Binkin & Kaufmann, 1989). However, the idea that "weekend warriors" could be as fit as full-time soldiers may also be problematic for the shared identities of AC soldiers. To the extent that the problem is real, additional fitness pretraining time for RC soldiers may be needed; to the extent that it is a self-serving perception, RC members of a mixed unit would need to prove themselves to their skeptical AC peers. Thus, the possibility of carrying unfit RC soldiers or the threat to the identities of AC soldiers are yet additional potential obstacles to mixed unit cohesion.

Dependability

Dependability in the current context refers to being reliable and following through on commitments. Individuals high in dependability take their duties and obligations seriously. This characteristic may be seen as the opposite end of a continuum from deviant and impulsive behavior, as well as egocentric behavior without concern for consequences or for the perspective of others.

An integral part of military life (and work life in general) is the partitioning of tasks to individuals. For example, the sentry's role is to alert the unit to approaching threats. In peacekeeping operations soldiers who do not take their duties seriously can harm the performance of the entire unit. In such missions, where soldiers place their lives in the hands of comrades, it is imperative that soldiers take their duties seriously. America's elite fighting units have long recognized the importance of this

characteristic: "... the hot dogs and daredevils rarely make it past the special ops screening boards. Today's secret warriors are obsessive about being team players. Freelancers get their mates killed" (Waller, 1994).

Cognition Under Stress

Stressors can be defined as "environmental events or forces [that] threaten an organism's existence and well-being" (Baum, Singer, & Baum, 1982, p. 15). Most would agree that there are few environments as stressful as combat. Severe injury or death to oneself or to comrades can occur at any instant. No wonder, then, that fear has been described as "the most fundamental and pervasive aspect of war" (Dupuy, 1987, p. 200). Moreover, soldiers often must endure substantial physical discomfort from fatigue, thirst, and hunger while performing in this environment. Particularly stressful are peacemaking operations against guerrilla forces. Identification of friend and foe is problematic, and ambushes can occur at anytime or anyplace.

Research in other work settings confirms that exposure to highly stressful environments produces a variety of negative consequences (Matteson & Ivancevich, 1982; Motowidlo, Packard, & Manning, 1986), both for the individual (e.g., physical ailments and emotional problems) and the organization (e.g., impaired quality and quantity of work, accidents, absenteeism). This suggests that individuals who are better at withstanding stress should perform better in combat operations. The importance of this characteristic for combat performance has long been recognized:

> If your officer's dead and the sergeants look white;
> Remember it's ruin to run from a fight;
> So take open order, lie down, and sit tight,
> An' wait for supports like a soldier.
> -Rudyard Kipling, "The Young British Soldier"

Cognition Under Stress is closely related to Stress Tolerance (positively) and Anxiety (negatively). It refers to the ability to think clearly and logically while under physical or emotional stress. High

scorers are not easily rattled and are more likely to remain calm under pressure.

Additional Empirical Support for Peacekeeping Attributes

A number of the attributes that we have associated with peacekeeping and peacemaking capability have been investigated with select segments of the U.S. Army who have been involved in similar operations. It is interesting to note that elite U.S Army units have been continually involved in peacekeeping and humanitarian missions. The first U.S. Army deployment to the Sinai consisted of troops from the 82nd Airborne Division. In 1991, Special Operations Forces (SOF) personnel came to the assistance of Kurdish refugees who were dying in large numbers in northern Iraq. In one case, SOF medics saved over 200 children given up for dead by local doctors (Collins, 1994). In recent years SOF teams inoculated 60,000 civilians in Cameroon to control a meningitis epidemic, taught African game wardens how to stop poachers, helped to deliver food and medicine to republics within the former Soviet Union, and assisted relief efforts in Bangladesh after Cyclone Marian (Collins, 1994). By all accounts, elite U.S. Army units have performed admirably in these and other humanitarian roles.

Evidence of the relevance of some of these constructs for SOF units was obtained in a recently completed job analysis of Special Forces positions (Russell, Crafts, Tagliareni, McCloy, & Barkley, in press). A sample of 176 Special Forces soldiers rated the job importance of 30 motivational, cognitive, psychomotor, and physical characteristics using a 5-point rating scale (1 signified unimportance and 5 signified extreme importance). "Team Playership" was viewed as the single most important characteristic, with a mean rating of 4.54. Cultural/ Interpersonal Adaptability, which is akin to Cross-Cultural Awareness and Sensitivity, had a rating of 4.17, and the related constructs of Communication and Language Ability were also highly rated. Constructs such as Dependability, Maturity (similar to Cognition Under Stress), and Physical Endurance were listed among the top seven attributes, with mean ratings above 4.00 (i.e., "very important"). Physical Strength was rated less than very important, although it was still seen as "important."

Combat Motivation/Socialized Aggression

A final type of construct that has proven somewhat useful in SOF research may at first glance seem irrelevant or even counterproductive for peacekeepers. This would include attributes that reflect physical aggressiveness, eagerness for combat, and similar characteristics seemingly incompatible with the basic role of peacekeepers. However, one may argue that while it would be undesirable to have peacekeepers and peacemakers who long to *initiate* combat, it would be important to know that peacekeepers are willing to assert themselves, either when coming under fire from belligerent combatants or when they must forcibly convince combatants to desist from harming others, to evacuate an area, or to allow a convoy safe passage. Thus the attribute combat motivation was investigated in a wider connotation than applicability to SOF. Below, we discuss this construct in greater depth.

According to Buss (1961), aggression is the deliberate attempt to deliver noxious stimuli to another person. Note that this behaviorally oriented definition distinguishes aggression from anger, which is an emotion, and from hostility, which is characterized by negative attitudes. Aggression is, of course, precisely what is required of soldiers in warfare, conceptualized as "a violent, planned form of physical interaction (fighting) between two hostile opponents" (Dupuy, 1987), the goal of which is "the violent resolution of the crisis, the wish to annihilate the enemys forces" (Clausewitz, 1984).

Although environmental events can facilitate aggression (Baron, 1979; Berkowitz, 1978; Carlson, Marcus-Newhall, & Miller, 1990), there are clearly individual differences in terms of the frequency and intensity of aggressive responses (Berkowitz, 1978; Carver & Glass, 1978; McCord, 1979; Toch, 1969). This suggests that some individuals may perform better in combat compared to others. In addition, there are conceptual distinctions regarding the motivation to aggress and the methods for aggressing which also may be related to combat performance.

Buss (1961) distinguishes between two broad types of aggression reinforcers: intrinsic reward from bringing pain or injury to the victim, and extrinsic rewards (e.g., approval, money, status, escape from noxious stimuli). It should be noted, however, that some extrinsic rewards (e.g., approval) are likely to become more intrinsic as the individual matures

and the approving authority generalizes from others to the self (Kegan, 1982). Therefore, the central motivational distinction appears to be between causing pain/injury to victims versus attaining other intrinsic or extrinsic rewards.

Clearly, peacemaking soldiers should be primarily motivated by rewards other than inflicting pain. Those who are motivated to inflict pain may or may not perform well in combat. However, these individuals may be more likely to aggress against fellow soldiers as well as noncombatants, which may result in collateral damage and/or killing of innocent civilians. What is required are peacemakers who have a well-integrated and internalized system of norms and values that control the manifestation of physical aggression. A quote from Waller's (1994) book on elite SOF units makes this point clearly:

> "All of us are behavioral chameleons," a combat-hardened Navy SEAL once told me. "Just as you compartmentalize intelligence programs, we learn to do that with our personalities. When you're on an operation, that's the violent mission side of you. It's totally different from the loving father side of you, who takes his kids to church and says hi to his neighbors." (p. 36)

Buss (1961) classifies aggressive behavior into three dimensions: physical-verbal, active-passive, and direct-indirect. The first distinction is self-explanatory, with kicking and cursing examples of physical and verbal aggression. The second dimension distinguishes between presenting noxious stimuli through active behavior or through inactivity. Deliberately driving slowly to block traffic is an example of passive-aggressive behavior. The third dimension distinguishes between aggressive responses where the victim either can or cannot identify the aggressor. An example of indirect aggression is slashing a car's tires when the owner is absent.

All aggressive behaviors can be classified using one or more of these dimensions. For example, kicking is physical-active-direct, blocking others is physical-passive-direct, and tire slashing is physical-active-indirect. While most individuals make use of each type of behavior at various times, individuals may show consistent preferences in the methods they use to aggress. Thus, when some form of aggressive

behavior is appropriate, it is probably desirable for peacemaking soldiers to manifest physical-active forms of aggression rather than physical-passive, verbal-active, or verbal-passive forms of aggression.

It is important to recognize that the Combat Motivation scale was designed to measure the willingness to engage in *socialized, context-appropriate* forms of physical aggression. However, the relationship between this construct and other, more unacceptable forms of aggression is, as yet, unknown. Research with the scale continues, and revisions to selected items have been made. At this stage the scale is best characterized as an early, experimental measure.

How might AC/RC differences in combat motivation affect performance in peacekeeping efforts? One may speculate that RC members would generally be lower in combat motivation, as they are not as regularly immersed in mission preparation, aggressive training, and Army doctrine and lore. In addition, their choice of RC versus AC membership may also bespeak less interest in full-time combat-oriented activity than AC soldiers, at least those in combat MOS. In a peace**making** situation, in which the threat of hostilities is high, this may be seen as a deficiency. However, in a peace**keeping** environment, when self-restraint is a greater priority than combat motivation (as defined above), this may be advantageous. Moreover, the missions for which some members of the ARNG are used (such as riot control or maintaining order) may be more relevant than those for which AC soldiers have trained.

Summary

The constructs described above were those considered most applicable to the peacekeeping domain. In the next section, we describe a job analysis that investigated the relative importance of these attributes in the MFO Sinai peacekeeping mission, as well as some estimates of their importance in more high-intensity missions, such as Somalia and Bosnia. Then, we describe our efforts to develop a selection instrument to measure these attributes. Though this effort was tailored to MFO Sinai, the basic model allows for a measure tailored either to peacemaking or for a more all-encompassing one.

JOB ANALYSIS EVIDENCE

A small-scale job analysis was undertaken in a series of interviews during 1994 with previous peacekeeping participants who had returned to Fort Campbell, KY. The purpose of this effort was to determine whether our a priori classification of attributes in terms of their relevance for low- and high-intensity peacekeeping was reasonably accurate.

Successive interviews were undertaken with 8 junior officers and noncommissioned officers (NCO) and with 10 junior enlisted soldiers. Each of the attributes aforementioned (and additional characteristics used in other research settings) was discussed with the participants to clarify the meaning of each attribute and to elicit general comments about the deployment. After all attributes were discussed, the participants were asked to rate each of the attributes on a 5-point Likert scale. Based on the ratings, rankings of each attribute were computed. Table 3-1 shows the ratings and rankings for both the officers/NCO and enlisted soldiers.

Generally, there was a substantial amount of agreement between the officers/NCO and soldiers about the *relative* importance of the attributes, with a correlation of .64 between their ratings. However, in terms of absolute agreement, the soldiers consistently used a lower portion of the scale. The biggest difference was in the rating of the importance of leadership ability and motivation to the mission. The officers/NCO rated this attribute as of the greatest importance, according it an average rating of 4.9 out of 5, which ranked it first among 22 attributes. The soldiers disagreed, rating it at 3.4, which was consistent with their view that officers and NCOs were underutilized and often irrelevant in the low-intensity MFO Sinai mission. Moreover, complaints about officer/NCO micromanagement because of lack of work were not uncommon, either with this group or on subsequent interviews with the 28th Rotation. The soldiers also downplayed the importance of outdoor orientation, team orientation, identification with the Army, interpersonal and boundary skills, cognitive ability, self-motivation, maturity, and cultural awareness, compared to the officers/NCO. One interpretation is that the soldiers viewed and portrayed the mission as a whole as less stimulating, challenging, and career-enhancing than did the officers/NCO. The main attributes that soldiers viewed as more important than did the officers were tolerance for boredom and stress

Table 3-1
Officer and Enlisted Ratings and Rankings of Attributes Needed for Peacekeeping Missions

	MFO Sinai				Somalia/Bosnia			
	Enlisted		Officers/NCO		Enlisted		Officers/NCO	
Attribute	Rating	Rank	Rating	Rank	Rating	Rank	Rating	Rank
1. Physical endurance	2.5	13	2.4	19	4.4	3	4.8	2
2. Physical strength	1.9	20	2.0	21	4.1	9	4.4	5
3. Outdoor orientation	1.8	21	2.6	17	3.3	15	3.1	17
4. Tolerance for boredom	4.4	1	3.6	4	3.1	16	2.1	19
5. Underutilization/cultural deprivation	2.7	9	3.0	13	2.8	21	1.9	21
6. Concern for privacy	2.3	15	2.4	19	2.0	22	1.8	22
7. Isolation tolerance	3.0	7	2.9	15	2.9	18	2.1	19
8. Team orientation	2.6	11	3.6	4	4.3	5	4.6	3
9. Identification with Army	2.2	16	3.4	8	4.1	9	4.0	10
10. Cultural openness	3.4	3	3.5	6	2.9	18	2.8	18
11. Cultural awareness	3.1	5	3.9	3	3.1	16	3.7	13
12. Stress tolerance	3.5	2	3.0	13	4.1	9	4.3	7
13. Cognition under stress	2.4	14	2.8	16	4.2	6	3.9	11
14. Cognitive ability	2.2	16	3.1	11	3.5	13	3.5	14
15. Practical intelligence	2.8	8	3.3	9	4.2	6	3.8	12
16. Interpersonal/boundary skills	2.1	18	3.1	11	2.9	18	3.3	15
17. Tolerance for ambiguity	2.1	18	4.5	2	3.4	14	3.3	15
18. Dependability (non-delinquency)	2.6	11	3.3	9	4.4	3	4.1	9
19. Maturity	3.4	3	4.5	2	4.1	9	4.6	3
20. Self-motivation, extra effort	2.7	9	3.5	6	4.2	6	4.3	7
21. Leadership ability & motivation	3.4	3	4.9	1	4.6	1	5.0	1
22. Combat motivation	1.5	22	1.8	22	4.6	1	4.4	5

n = enlisted (10) officers/NCO (8)

Rating Values: (5)- Crucial, (4) - Very Important, (3) - Somewhat Important, (2) - Slightly Important, and (1) - Not at all Important

tolerance, perhaps reflecting the greater stretches of time spent by soldiers in observation posts. One implication is that the attributes needed by soldiers and officers/NCO are in fact different, but this will require a wider collection of data in the future. Only one attribute was evaluated uniformly as being unnecessary for low-intensity peacekeeping environments like MFO Sinai: combat motivation. As shown, this is clearly a reflection of a low-intensity mission and is not necessarily indicative of attributes needed for high-intensity peacekeeping missions.

Also illustrated in Table 3-1 is the degree to which attribute relevance changes from low-intensity missions like MFO Sinai to high-intensity environments such as Somalia/Bosnia. Steinberg (1994) has indicated a number of dimensions upon which various missions may differ. She lists (a) situation stability, (b) complexity of the military force, (c) complexity of the organizational environment, (d) amount of threat/lethality, (e) duration, (f) media interest/presence, and (g) public acceptance of the mission. However, no work has been done on whether and which of these dimensions would affect the mix of required attributes for successful accomplishment of the mission, whether for selection or for training emphasis. In the context of the current study, we attempted to get some estimate of the relative importance of these dimensions across the two different peacekeeping environments. Thus, the soldiers and officers were asked to assess the importance of the attributes for a unit sent to either Somalia or Bosnia. The soldiers had not served in either Somalia or Bosnia, and thus their views were speculative. Nevertheless, the respondents were able to identify clear differences in what might be needed for accomplishment of those missions.

One obvious example would be combat motivation, which was rated relatively important for Somalia/Bosnia, and virtually irrelevant for the Sinai. Conversely, tolerance for boredom, which was rated as important in the Sinai, was rated very low in Somalia/Bosnia. Surprisingly, cultural openness, which was rated as important in the Sinai, was rated low in Somalia/Bosnia, although cultural awareness was rated almost equally important for both types of missions. Clearly, this work needs to be done with soldiers who have actually been on the missions that they are rating and with a wider range of actual missions. As a group, the correlation between the ratings of attribute importance in Sinai compared to Somalia/Bosnia was -.13 for the enlisted soldiers and

.21 for officers/NCO. On the other hand, the soldiers and officers had strong agreement about the relative importance of attributes in a Somalia/Bosnia type of mission, with a correlation of .90 between their ratings.

CONCLUSION

A model of peacekeeping attributes, one which encompasses both peacekeeping and peacemaking, has been postulated. Evidence from a small job analysis indicates that a range of attributes would be especially useful for participation in peacekeeping such as the MFO Sinai, and a different subset of attributes may be more crucial for more intense peacemaking situations such as Somalia or Bosnia. Other missions, such as the recent U.S. deployment in Haiti, may fall somewhere in between. Initial evidence from a study of recent MFO peacekeepers indicates that the attributes applicable to the MFO can generally be measured with some degree of reliability (Mael, Kilcullen, Olszewski, & White, 1995).

Future work will involve actual validation of these measures. Further, as discussed above, it would be a mistake to treat the MFO Sinai as an exemplar of all peacekeeping, as it is actually relatively anomalous. Thus, additional job analysis-type interviews and surveys with other soldiers who have participated in other missions would help establish the whole range of needed attributes for a peacemaker, and would better delineate the mission characteristics that would determine the proper mix of attributes to be stressed. In order to accomplish this goal, ongoing efforts are being made to ensure participation of soldiers from other nationalities in this research, especially soldiers from those nations whose armed services specialize in peacekeeping.

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4

FILLING THE MFO's PERSONNEL NEEDS WITH VOLUNTEERS: PROCEDURES TRIED AND LESSONS LEARNED

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INTRODUCTION

This chapter examines the process of staffing those positions in the composite unit that were designated for the Reserve Component (RC). Since the use of a composite unit for this mission was unprecedented, the process was not easy. Staffing with Active Component (AC) soldiers was not new, but the use of volunteers from the RC was. As with other aspects of the experimental unit, an investigation of how this was done can provide valuable lessons, both as a foundation for future efforts and as a source of lessons learned concerning what problems can arise and how to deal with them.

The staffing of the volunteer positions can be analyzed in terms of three major, somewhat interrelated processes which need to be conducted effectively: recruiting, screening, and retention. While the use of each of these terms is familiar in other contexts, the meaning of each is somewhat different here. Recruiting and screening are terms commonly applied when the problem is to persuade individuals to apply for entry into an organization, then to determine whether those individuals who are willing to apply meet the requirements for entry. These requirements involve cognitive, physical, moral, or other characteristics.

In this case, the individuals had already applied for entrance into the Army National Guard (ARNG) or the United States Army Reserve (USAR) or had voluntarily followed a path that led to their membership in the Individual Ready Reserve (IRR). They met that organization's entry requirements; the recruiting problem was to persuade them to apply for a particular mission. The screening problem was to determine whether they were qualified to perform this mission.

Retention is also typically associated with organizational membership. The problem is generally one of convincing those who have already joined an organization to continue membership in that organization. In this case, the problem was ensuring that those who volunteered for a particular mission did not change their decision before the beginning of that mission.

A total of 446 individuals were recruited by the RC for this mission. Of these, 401 were provided by the ARNG and 45 by the USAR. The recruiting processes for the ARNG and the USAR are summarized graphically in Figure 4-1. As this figure shows, the ARNG recruiting process began in January of 1994 and the USAR process began in March of that year. Recruiting, selection, and retention activities all culminated in the arrival of selected junior enlisted volunteers for unit training at Fort Bragg on 1 October 1994. One unexpected occurrence prior to this date was the temporary shortfall of ARNG and USAR members. The factors leading to this shortfall, and the manner in which the shortfall was eliminated, are topics which will be addressed in this chapter.

Since the bulk of the RC members of this unit were drawn from the ARNG, the processes used by the ARNG are the ones that will be examined here in greatest detail, but some attention will also be given to the USAR. The first section to follow deals with the ARNG, followed by a short section on the USAR. The focus is organized around these three major personnel activities: recruiting, screening, and predeployment retention. However, since both the data collection and activities were different for the separate organizations, the findings will be presented somewhat differently for the ARNG and the USAR. In the ARNG section, recruiting and retention are dealt with jointly, following a discussion of screening. In the USAR section, a separate recruiting section is followed by one which combines screening and retention.

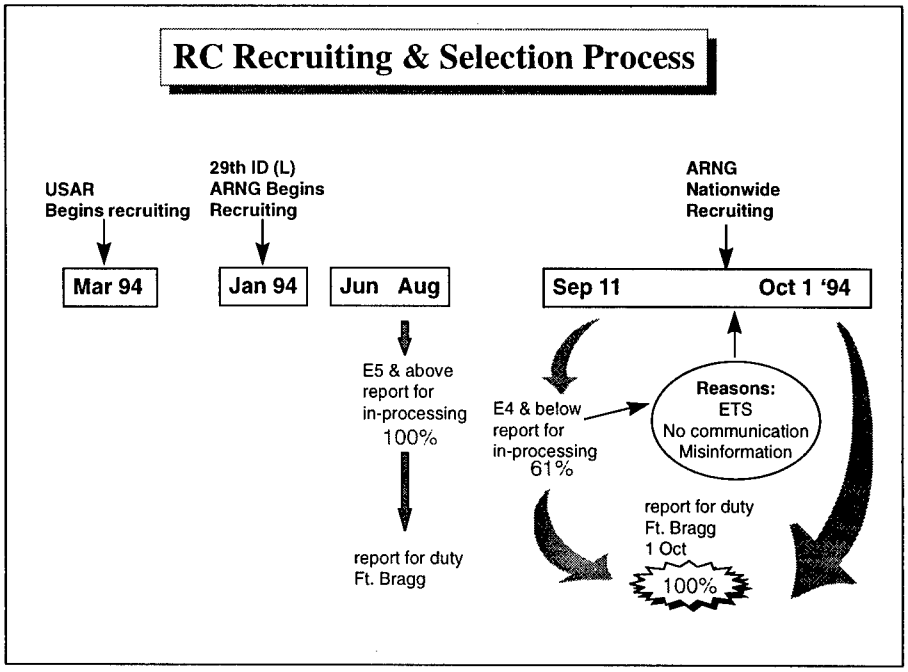

Figure 4-1. Time line for recruiting process.

ARMY NATIONAL GUARD PROCEDURES

Screening

As noted earlier, screening for a specific mission is a different problem from that of screening to determine qualifications to join a particular organization. In the case of this Multinational Force and Observers (MFO) peacekeeping mission, the pool of applicants had already been screened to determine their eligibility to join the ARNG, and all had been deemed fit to join that organization.

Thus, there was no need to address the question, do these applicants have the qualifications to be good soldiers? This question had already been posed and answered affirmatively. However, having determined this, could it automatically be assumed they would successfully perform the duties of a soldier serving in the MFO Sinai mission?

As noted in Chapter 1 of this book, the U.S. Army had, in the past, always deployed an intact AC unit to the Sinai. When an AC unit is

deployed, the issue of individual screening tends to receive minimal attention. The unit is assumed to be capable of performing the mission; accordingly, virtually all individuals within that unit are assumed to be capable of performing their parts in that mission. Informal screening may occur in the case of a few known problematic individuals, but no formal screening process, beyond perhaps meeting certain administrative requirements associated with overseas deployment, is deemed to be necessary.

For the ARNG soldiers in the MFO composite unit, conditions were somewhat different. They were not drawn from a single intact unit, so the process did not begin with an automatic assumption that no individual mission-related screening was necessary. Also, given the potential eventuality that the number of volunteers would exceed the number of positions available, some mechanism for evaluating the relative qualifications of the individual candidates could be viewed as not only having value, but even as being a necessity.

If, for these reasons, a formal screening process were to take place, it could proceed in one of two ways. These will be described here as administrative and supplemental. An administrative process would be one which relies entirely on information already available on an individual. If the individuals records show that he or she meets the selection criteria, then that individual is judged to be qualified for the position; otherwise, he or she is not qualified. A supplemental screening process would be one which uses tests or other measures, whether written or situational, to obtain additional information about the individual's suitability for the position.

Pinch (1994) has described a process for selecting Canadian peacekeepers from a formed unit that is fundamentally administrative in nature. Personnel are screened in such areas as "training and coursing requirements, security, medical, dental...and the like." Pinch believes that, within such an administrative framework, "the psychological fitness of the individual member" can be evaluated. "The areas to be considered would include those already considered by the more conscientious units: service record and experience, social conduct, in and out of the military; history and incidence of alcohol and other substance abuse; social and family stability and interpersonal skills; attitudes and behavior toward other cultures and social groups, etc."

Pinch (1994) also notes some factors that can inhibit the effectiveness of such screening. These include a "lack of routinization of procedures," which means the individual member "may have to show considerable initiative to be completely processed;" reliance on replacements, who in terms of screening, are "most disadvantaged;" and failure to record screening decisions and their justifications.

The need for a minimal administrative screen which ensures that soldiers are qualified with respect to relevant military skills and have sufficient medical and dental fitness to qualify for an overseas assignment in a relatively remote location seems reasonably self-evident. The incorporation of other elements pertaining to "social conduct, in and out of the military; history and incidence of alcohol and other substance abuse; social and family stability and interpersonal skills; attitudes and behavior toward other cultures and social groups, etc.," is less self-explanatory, and to understand Pinch's reasoning in considering these elements, it is necessary to consider the characteristics of a peacekeeping mission which might differentiate it from a conventional, war-fighting mission.

According to Pinch (1994) and Last (1992), a peacekeeping mission focuses on impartiality and restraint on the use of force so as not to escalate the conflict further. In this sense, the goal of peacekeeping is to stabilize and/or eliminate a conflict. Contrary to this, a war-fighting mission would concentrate on victory. Due to the divergent mandates, modes of operation, and rules of engagement that each would represent, it is questionable whether all of the abilities needed for combat in a conventional war-fighting stance are compatible with extensive peacekeeping duties. Thus, even though one has been found to meet those requirements associated with being a soldier, further psychological screening to ensure that one can behave appropriately in a peacekeeping environment has potential value.

The purpose of this section is to examine the basic components of the process of screening ARNG personnel for the 28th Rotation as a foundation upon which any revised set of procedures can be built. Questions of interest include: What kinds of information are being collected now? and What might this information tell us about the qualifications of those being evaluated? We are interested in characterizing this process as administrative or supplemental not as a

means of evaluating it, but as a means of better understanding it. We will not directly address how well the procedures were executed—rather, the current focus is on the procedures themselves.

Data Collection

Information on the screening process was obtained by the first author from three personal interviews with the Personnel Officer (S-1) at the 29th ID(L) Headquarters (HQ) in Fort Belvoir, VA. The meetings took place at various times from August 1994 through January 1995. Following the interviews, a summary of the information obtained was prepared and reviewed by the 29th ID(L)'s S-1 and the S-1 at the 28th Rotation to ensure the validity of the facts.

Description of Screening Processes at Each Level

Overall, the procedures followed can be described as principally administrative and iterative. Screening occurred at three different levels: brigade, battalion, and division. Although there was some redundancy across the levels, different types of qualifications tended to be emphasized at different stages. The process encompassed both objective and subjective, and formal and informal elements. Objective elements tended to be assessed in a formal manner; subjective elements more informally.

The Brigade Level - "Setting Standards and Gathering Volunteers"

The process of screening ARNG volunteers began at the brigade level. After the 29th ID(L) was chosen for the task, the first step was to obtain a list of volunteers from each brigade in the states of Virginia and Maryland. Records of volunteers were reviewed against standard U.S. Army requirements which fell generally into four different categories. One category focused on individual performance and required a volunteer to be qualified in his or her military occupational specialty (MOS) and on weapons. They could have no pending adverse personnel actions which, for officers, included being passed over for promotion. Another category concerned family support, including the requirement that volunteers have a current family care plan and not be single parents or members of a dual-parent military family. A third category (medical) excluded soldiers

with dental braces. A fourth category, military status, included the requirement that the volunteer be able to complete the tour of active duty at least 30 days prior to the mandatory removal date.

At this point, virtually no evidence is available to determine how units balanced their own needs against the needs of the MFO mission in making their selection decisions. Based on discussions with individual ARNG personnel, we must consider the possibility that some units did not always recommend their best full-time personnel for volunteer status. Specifically, individuals with exceptional or unique job skills and/or those occupying "hard-to-fill" MOS positions were seen by their chain of command as too valuable to the operations of their ARNG unit to be allowed further consideration as MFO volunteers.

The Battalion Level - "Identifying Candidates to Go Forward"

Once a list of volunteers was established, the next step in the selection process was at battalion level. In this step, each volunteer was screened by the First Sergeants (1SGs) in coordination with their respective company and battalion commanders. Not unlike the reported Canadian system for selecting peacekeepers (Pinch, 1994), the United States ARNG 1SGs conducted a review of the volunteers' service files for evidence or indicators of problems that could be exacerbated or create dysfunction in the operational environment. Examples of such criteria included: work performance, social and military conduct, misuse of alcohol and other drugs, and attitudinal and behavioral problems. For the most part, the criteria during this stage were of a GO/NO GO nature. In this light, the criteria were used for the purpose of weeding out rather than selecting in individuals for peacekeeping duties.

At this level, the screening process was both objective and subjective, formal and informal. For example, while specific objective requirements for eligibility were sent down to each brigade, it was up to the subjective decision making ability of the 1SGs and brigade commanders to determine the (work-related and personal) social and behavioral suitability of each volunteer for deployment. To do this, additional criteria were often used that dealt with the volunteers background and day-to-day, work-related interactions between the volunteers and their superiors (usually the 1SGs). The additional,

work-related criteria were objective (e.g., attendance and punctuality) as well as subjective in nature (e.g., motivation, reliability, character, emotional stability, poise, personality, energy level, work ethic, military appearance). In some cases, when the individual on the list was not well known to the 1SG, and work-related criteria were not well established, an informal interview was scheduled to help the 1SG make a GO/NO GO decision about the person.

On the basis of the decisions made at this level, a new list of prospective volunteers, known as the MFO Volunteer By Name Roster, was sent from each ARNG battalion/brigade in Virginia and Maryland to the S-1 in charge at the 29th ID(L) HQ.

The subjectivity of the 1SG's decisionmaking process could be viewed as a source of potential variability and uncertainty in the screening of volunteers. At this time, no data are available on how much the 1SGs varied from one another on the percentage of those screened and to what degree any of the criteria were used. No set standards were developed for the 1SGs to base their decisions on, and therefore, the reliability of the decision making process at this stage becomes an issue.

Division Level - "Eliminating Those Not Qualified"

At division headquarters, projections were made on a unit roster which listed the number of slots to be filled by various MOS. Based on a number of criteria taken from the Volunteer Criteria Questionnaire, volunteers were slotted, by MOS, in the 28th Rotation unit roster. Once all positions were filled, each individual chosen was then notified of his/her status as a volunteer. The criteria used for slotting volunteers, once again, fell into several categories. One category concentrated on physical fitness standards and included height/weight certification, tape measure test, and the Army Physical Fitness Test (APFT). A second job performance category included an additional check for MOS, grade, and weapon qualification and ensured satisfactory completion of common task training (CTT) within 6 months of reporting for duty. A third category dealt with medical eligibility and required that all volunteers have a negative HIV test 24 months prior to reporting; no history of mental illness or mental disability; no history of chronic orthopedic,

gastrointestinal, neurologic, or dermatologic illness; and no history of anaphylaxis or anaphylactoid reaction.

The 29th ID(L) included a screen of those volunteers with any past signs (e.g., clinical and medical diagnosis including prescribed medications) of depression on their personal medical files. This additional medical requirement is over and above the volunteer screening requirements handed down to the ARNG units by the Department of Army.

As a general rule, eligible volunteers equal in all other areas but with higher scores on the APFT and CTT were slotted before those with lower scores. Alternatives or "backups" at each position were usually individuals with lower scores on these tests than someone else with the same rank and MOS qualification.

Final processing at division level included a final check of all listed standards, with particular attention to the accuracy of the height/weight and APFT scores listed in each volunteer's personnel files. Once the volunteer reported for training, a final height/weight and APFT check was conducted. If it was determined necessary to send an individual home at this point, the next individual slotted as a "backup" for that particular position was used.

While height/weight measurement is presumably a relatively objective procedure, there is perhaps some opportunity for error in conducting the measurement and for judgment in how strictly the standards are applied. There are no data which would directly show how the application of standards to the ARNG volunteers compared to their application to AC soldiers, but some MFO leaders expressed the judgment that Regular Army personnel follow the standards more exactly and are more rigid in their measurement than ARNG personnel.

Screening Results

Approximately 763 individuals volunteered for 399 positions, of which 390 were accepted. The staffing requirements of the MFO peacekeeping mission made heavy demands (at every level of enlisted and noncommissioned officer [NCO] rank) on soldiers with the 11B (Infantryman) MOS, who were concentrated in the nine maneuver

battalions of the division's three maneuver brigades. Accordingly, although volunteers were attached to 37 different units of the 29th ID(L), 81% of all volunteers and 92% of accepted volunteers came from the nine battalions of the division's three maneuver brigades. Only five units outside the maneuver battalions produced more than 1% of total volunteers, and volunteers from those five units were not accepted at a high rate (only 8 out of 98).

Summary

The screening process of ARNG volunteers can best be described as administrative and occurred at three different levels: brigade, battalion, and division. At the brigade level, names were collected and records were reviewed against Army requirements to determine if each individual met the standards set for volunteer status. At this level, primary concerns were on performance and medical criteria and determining if the volunteer had a current family care plan. If a volunteer met all current requirements, he/she was included for further consideration at the next (battalion) level.

At the battalion level, screening involved identifying individual candidates for further consideration. At this stage, less objective criteria such as motivation, reliability, energy level, and emotional stability were sometimes used, primarily by the 1SGs, to determine the social and behavioral suitability of each volunteer. From this, a list of prospective volunteers was then forwarded to the division level.

At division level, decisions were made based primarily on the volunteers' levels of physical fitness. The last stage of screening, at the training site, once again involved physical fitness reviews on each volunteer.

The screening process concentrated on making sure that each candidate passed all requirements before being considered for volunteer status. As such, it can be seen as a foundation upon which any revised process can build.

Several problems did arise, the most problematic being the loss of a large number of volunteers. However, a review of the current process, with a lessons learned approach in mind, should help to develop and

conduct improved screening procedures for possible future composite peacekeeping battalions.

Recruiting and Retention

Recruitment and predeployment retention of volunteers were not originally focal issues of this project. Had they been so, a more comprehensive and balanced data collection than the one adopted would have been appropriate. For example, it would have been logical to attempt to question a large proportion of those who participated in the deployment about the recruitment process. However, questions regarding this process emerged ultimately as a function of two factors: (1) the unexpected failure of many presumed volunteers to report for duty in the peacekeeping unit on the date scheduled, and (2) an interest in the impact of the peacekeeping mission on the supplying unit, the 29th ID(L). As a result of the first factor, an intensive data collection focusing on the "no-shows" was initiated. Because of the second factor, a comprehensive questionnaire, which included questions on the recruiting process, was administered to soldiers of the 29th ID(L). Both of these efforts generated information about the recruiting process, and in many cases the conclusions from both data collections tended to converge.

Two cautions should be raised, however. Neither effort was optimally designed to generate a comprehensive picture of the recruitment and retention processes, and neither can be assumed to have done so with complete success. Second, both of the efforts could be viewed as having a "problem-oriented" bias. They were more focused on identifying elements of the recruiting process that were problematic than on those that were successful. Thus, any conclusions from these efforts should be qualified accordingly.

Data Collection Strategy: Interviews With "No-Show" Volunteers

Background

Several months elapsed between the time when soldiers initially volunteered for the peacekeeping mission and when they eventually were notified of their acceptance. During this time, many volunteers changed their minds about serving in the Sinai. Although 390 eligible individuals originally volunteered for this mission, the 29th ID(L) ultimately

contributed 294 soldiers. A large number of "no-shows" were suffered by the 29th ID(L) during August/September 1994. This development raised problems for the ARNG which then had to put out a national call for volunteers to get the necessary number of volunteers for the MFO mission. The national call was issued at the last minute, and another 107 ARNG volunteers were subsequently selected from 22 other states.

Data Collection Methodology

The unexpected shortfall was an issue of intensive research interest. A list was obtained from the 29th ID(L) of the names of 57 soldiers who had initially volunteered for the Sinai Peacekeeping mission but who, according to available records, withdrew prior to commencing training. Thirty-seven were interviewed by telephone in January 1995 in an effort to determine why they had changed their minds. Over 70% were grades E3 or E4. Twenty soldiers could not be interviewed for a variety of reasons, including completing their term of service, failure to complete a APFT, and, in four cases, because the presumably missing soldiers actually were serving in the Sinai.

Data Collection Strategy: Data From 29th ID(L)

Questionnaires designed for the specific purpose of measuring the impacts of the peacekeeping mission were administered to both senior leaders and junior leaders/soldiers of the 29th ID(L). For more details on these questionnaires, see Smith and Hagman, Chapter 16.

Participants

Senior leadership sample. On the basis of their duty assignments, 112 senior leaders in the 29th ID(L) were identified as qualified to observe and evaluate impacts that resulted from the unit's participation in the peacekeeping mission. Questionnaires were directed to the company commanders and 1SGs of all 36 companies of the nine maneuver battalions (combined $n = 72$), as well as battalion commanders, S-3s, and sergeants major (combined $n = 27$), and brigade commanders, S-3s, and sergeants major (combined $n = 9$). At the division level, questionnaires were directed to the Chief of Staff, G-1, G-3, and Sergeant

Major (combined n = 4). A total of 112 senior leaders constituted the data collection population.

Junior leader/soldier sample. A database known as SIDPERS was used to identify the potential population from which a stratified sample of junior leaders/soldiers was structured. Eligible sampling units consisted of all soldiers in the nine maneuver battalions of the 29th ID(L), excluding soldiers serving in an Army mission, as well as senior leaders who were included in the senior leadership survey.

Using this database, soldiers were stratified by rank and grouped with those who were considered likely to be platoon leaders (officers), platoon sergeants (E7-E8), squad leaders (E5-E6), and other squad members (E1-E4). Surveys were mailed to all platoon leaders (168 in the population) and all high-level NCOs (107 E7-E8s in the population). Random samples of 400 junior NCOs at the sergeant (E5) and staff sergeant (E6) level (from among 992 available) and 200 junior enlisted soldiers at levels ranging from E1 to E4 (from among 1,982 available) were constructed. The final sample consisted of 875 individuals.

Senior Leadership Questionnaires

Senior leadership questionnaires were administered on two occasions, but only on the first occasion was a question involving recruiting included. This first administration occurred approximately 60 days after troops departed for the peacekeeping mission. Questionnaires were delivered via mail and were designed to require no more than 1 hour to complete. Telephone calls were used extensively in cases of nonresponse to encourage participation. Ultimately, however, participation was voluntary. Because a key concern was to determine if reactions to the mission changed over time, it was decided, at the outset of the investigation, to base statistical analyses only on senior leaders who completed both questionnaires.

Senior leadership questionnaires probed both personnel and training impacts of the mission, with recruiting being just one of several topics covered.

Additional information about the recruitment process and factors that impacted on the retention of those initially recruited came from written comments from junior leaders and soldiers.

Junior Leader/Soldier Questionnaires

To the extent possible, junior leader/soldier questionnaires covered the same questions that were asked of senior leaders. Since many questions for senior leaders were inappropriate for junior leaders/soldiers, the junior leader/soldier questionnaire was abbreviated in some areas. Additional information about the recruitment process, as well as factors which impacted on the retention of those initially recruited, came from written comments. Junior leader/soldier questionnaires were administered 4 months after volunteers departed for training.

A number of questions are of interest to the areas of recruiting and retention. Although these processes were not intensively studied, several sources of information provide some insight into how these functions were executed, how successful they were, and how improvements could be made. We will first focus on two relatively specific questions: what types of recruiting activities took place and what factors, occurring between the time soldiers volunteered and the time they were to report to duty, led to attrition. Later sections will address aspects of recruiting and retention from the perspective of a sample of soldiers and leaders from the 29th ID(L). The purpose is to attempt to gain further perspectives on how these processes took place and how they might be improved.

Results: Interviews With "No-Show" Volunteers

Interviews with "no-shows" provided four types of information: (1) how this group was initially contacted, (2) recommendations for improving the recruiting process, (3) reasons for not reporting, and (4) recommendations for improving the predeployment retention process.

Initial Contacts

The "no-show" volunteers cannot be presumed to be representative of the full set of those who were recruited. However, their responses

concerning the manner in which they were initially contacted, which may not dramatically differ from the typical recruiting pattern, were informative. Over 90% had been contacted about volunteering for the mission at the armory. Contacts were made by a wide variety of individuals. Company commanders, company 1SGs, and battalion commanders accounted for less than half of initial contacts. Other sources of initial contact included platoon sergeants, readiness NCOs, and "some General from division." One soldier said he first learned of the peacekeeping mission by reading about it in the *Army Times*. If these reports can be accepted at face value, they indicate no systematic method of disseminating information about the forthcoming mission. It should be noted, however, that these reports are retrospective (up to 1 year), and the multiplicity of reported contact sources may reflect the normal distortion that often occurs with the passage of time.

Over 80% of the soldiers reported that they had been contacted initially in January, February, or March of 1994, predominantly in group settings (81%). No soldiers reported feeling pressured to volunteer, and nearly 84% said the mission was adequately explained. One soldier reported that he was told to sign up at the time of the initial briefing and was promised that more information would be forthcoming later. Another soldier said the briefing was adequate, but that "...after the initial briefing ... they wanted a 'yes' or 'no' at that time without [the opportunity to talk] it over with others. They expected an on-the-spot decision."

Interviewee Recommendations for Improved Recruiting

Timing and information adequacy were the dominant themes of those who were asked for suggestions on how to improve the call-up process. Soldiers said the mission had come out of the blue, with no advance notice. They needed time to think about the implications of volunteering and wanted details on mission requirements and the opportunity to talk it over with family, friends, and other community members before making a decision.

Reasons for Not Reporting

Although soldiers often cited multiple reasons for not reporting, when asked their primary reason, the most frequently cited reason was Family (cited by 41% of soldiers), followed by Job (14%), and School (14%). When allowed to cite multiple reasons, 16% mentioned Money, but when asked to cite the primary reason, only 3% chose Money.

Interviewee Recommendations for Improved Retention

Suggestions for improving the process that followed the initial call for volunteers focused on the need for timely feedback. Soldiers reported that once they had volunteered, they were given no specific dates for training and heard nothing about the mission except rumors. One rumor they heard repeatedly was that the mission had been scrubbed. In the absence of specific information, volunteers went about their lives, starting new jobs, resuming or beginning their education, becoming engaged, and making other personal and community commitments. By the time they received word that the mission was imminent and that they had been selected for participation, many of them had to withdraw due to conflicting obligations.

Results: 29th ID(L) Questionnaire Data

Both the soldier/junior leader and senior leader questionnaires provided respondents with an opportunity to respond to the question: "In what ways could recruitment for the PK mission have been improved?" The responses received to this question have implications for both initial recruiting and follow-up retention activities.

A high proportion of members of the senior (92%) and junior (69%) groups said the peacekeeping recruitment process could be improved. Among the dozens of suggestions from the two groups, two recurrent themes emerged: information and timing. Members of both groups repeatedly stated that sufficient prior notice was not given. This was accompanied by pressure to volunteer without adequate information, particularly concerning the anticipated timetable of events, and precise details of what would be expected of volunteers during all phases of the mission. The junior respondents noted that they were not given sufficient

time to adequately confer with family, employers, and community contacts before making a decision about volunteering.

Many of the comments from both groups suggested that the initial push to volunteer was followed by months without feedback, during which time at least some, if not all, of the volunteers had no idea if they had been accepted or rejected for the mission, or if the mission had indeed been canceled. The long lag between the solicitation of volunteers and subsequent notification of selection was cited by several in the junior group as a major reason for not following through with their initial intentions. For senior leaders, the period of silence ended abruptly with the application of new pressure to recruit more soldiers for the mission. By this time, as noted earlier, many of the volunteers had changed their minds, or made other arrangements.

To avoid these problems in the future, many senior leaders recommended briefings by peacekeeping mission veterans and dissemination of unambiguous eligibility requirements, selection criteria, timetables of events, and (written) expectations. Several senior leaders mentioned that superior performance would result from activation of intact units, as an alternative to reliance on individual volunteers.

Several junior leaders/soldiers emphasized the need for the Army to conduct public relations efforts with employers to impress upon them the importance of the mission and the requirement for having jobs available upon the volunteers return from the mission. Some members from this group also concurred with the senior leaders' recommendations regarding briefings by Sinai veterans and also favored the use of in-depth informational videos. Several also favored using an intact unit rather than relying on individual volunteers.

Table 4-1 lists recommendations for improving the recruitment and retention process that emerged from these questionnaires, in order of their frequency of mention. Recommendations are listed separately for the senior and junior groups and are listed only if they were given by at least two members of the group in question.

Table 4-1
Suggestions on How to Improve the Peacekeeping Mission Recruitment Process

SENIOR LEADERS

# Times Mentioned	Suggestion
19	• Timing issues: Earlier information/faster notification/more advance notice/reduced lag time between volunteering and serving
14	• Briefings by Sinai veterans/Active Component (AC) representatives
13	• More/better/detailed information/clear expectations/timetables/clear eligibility requirements and selection criteria
6	• Guaranteed return employment/public relations (PR) with employers
2	• Mobilize entire unit/battalion
6	• Maintain promotion eligibility during peacekeeping tour
2	• Widen the volunteer pool: entire National Guard
2	• Provide incentives: money/tax breaks/tuition

JUNIOR LEADERS/SOLDIERS

# Times Mentioned	Suggestion
33	• More and/or better and/or more detailed information and clarified expectations
32	• Timing issues: Earlier information, faster notification, more advance notice, reduced lag time between volunteering and being notified of selection
10	• Guaranteed return employment
9	• Briefings by Sinai veterans
7	• Mobilize an entire battalion
4	• Remove politics from selection process
3	• Widen the volunteer pool: entire National Guard
3	• Avoid overpromising
2	• Do not solicit volunteers and then tell them they are ineligible
2	• More division support for the mission
2	• Send Active Guard and Reserve (AGR) soldiers
2	• Recruit new National Guard soldiers for the mission
2	• Open the recruitment to all ranks

Discussion of Army National Guard Recruiting and Retention Procedures

The different sources provide remarkably consistent results concerning what aspects of the recruiting and follow-up process could be improved. These can be summarized in terms of the following lessons learned:

(1) Provide advance notice. Let potential volunteers know in advance that a mission is forthcoming.

(2) Provide complete details in advance, in writing, especially regarding dates, mission requirements, training, and availability of family support. Ensure that the same information is provided to everybody. Standardize the information dissemination process.

(3) As part of information dissemination, have previous mission volunteers conduct briefings. If possible, these briefings should be conducted by soldiers of the same rank and educational levels as those being recruited to enhance rapport and optimize credibility and communication effectiveness.

(4) Give soldiers the opportunity to talk it over with family and significant others. It is imperative that family and significant others be part of the decision process. A substantial number of soldiers cited either "Family" or "Significant Others" as reasons for changing their minds about the mission.

(5) Develop a schedule and stick to it. If schedule changes cannot be avoided, immediately communicate the details to volunteers.

(6) Make the selection criteria clear to all potential volunteers.

(7) Provide timely feedback on the results of the selection process, well in advance of the date for commencement of train up. In the present instance, soldiers were left in limbo for months, with no reliable information whatsoever and uncertainty as to whether the mission was still planned.

(8) Strive for consistency in administration of the call-up process. Research on the present call-up (including not only the present sample of 37 volunteers but also interviews with 29th ID(L) leaders and a random sample of other soldiers) indicated that some soldiers claimed they had

never volunteered in the first place, although they were placed on volunteer rosters. Others claimed they had indeed volunteered and in fact had never changed their minds about going, were eager to go, and had never been told why they had not been selected. Others thought they had been unfairly rejected for the mission, and some of them were clearly embittered. In the present survey, four soldiers who had been listed as volunteers who had changed their minds were actually in the Sinai.

The single most striking theme which emerges from all of this is the importance of communication in the recruiting and follow-up process and the relationship between communication problems and problems which emerged in the recruiting and retention arenas. Lack of timeliness and completeness of information hindered the recruiting process. Lack of follow-up and feedback hindered the retention process.

Identifying the problem is of course much easier than fixing it. Enhanced communication in an organization as large and complex as the ARNG requires not only the will to make effective communication a reality, but the means. Where mechanisms are already in place for enhanced communication, an awareness of the problem should set in motion actions for alleviating it. To the extent such mechanisms are not available, solutions may require creativity, special effort, and successful time management.

Recommendations

As noted earlier, the primary purpose of this chapter section on ARNG screening is to provide descriptive information of how the function was performed, not to evaluate its effectiveness. Further research is needed to examine the components of peacekeeping performance and the extent to which different types of personal information predicts individual success on missions of this type. It will give us a better basis for determining whether enhancements to current procedures, such as more systematic and comprehensive measurement of an individual's past history, behavior, and aptitudes, would be advisable. However, sometimes even a descriptive analysis of a process can identify possible problem areas and generate recommendations for change. Accordingly, we will cautiously explore what "lessons learned" can be drawn from the screening processes used for this experimental unit.

The principal problem that emerged during the process of staffing this unit was the shortfall that occurred when volunteers were to report for duty. We have already examined this problem from a recruiting and staffing perspective. From a screening perspective, some safeguards could be taken to avoid this problem. If the pool of volunteers were large enough to support it, a "double-staffing" screening approach, which lists two potential individuals for every available position, could be adopted with the best of the two scheduled to go. Screening to identify a greater number of qualified individuals than needed would cost more; however, the payoff of gaining better soldiers and greater preparedness may outweigh the extra costs involved.

A second issue that emerged involves the standardization of procedures. The three-level process of screening, which involves brigade, battalion, and division, has advantages in terms of a logical organizational progression and in terms of multiple screening checks, but it does make standardization difficult. Standardization at brigade and battalion levels present particular challenges. To the extent that objective standards could be substituted for the subjective judgments currently being made at these levels, standardization would be enhanced. However, the goal of removing subjectivity entirely is probably both unrealistic and undesirable.

As information accumulates about what individual characteristics are associated with peacekeeping success, decisionmakers at every level will have a better basis for evaluating candidates. In some cases, it may be possible to translate this information into routinized procedures.

However, this information will have limited value if it is not shared with all those at brigade and battalion level who participate in the decisionmaking process. This could be accomplished through a number of means. One would be the distribution of a comprehensive written packet which provides information about how the standards are to be applied and on what rationale or research they are based. This could be an expansion on or replacement for the instructions that specified qualifications for the experimental unit. Also, communication among the decisionmakers at brigade and battalion level about their interpretation of the standards and how they are to be applied could enhance standardization.

UNITED STATES ARMY RESERVE (USAR) PROCESSES

Recruiting

The information available on USAR recruiting is basically descriptive, not evaluative. It provides little basis for recommendations, but does provide a sense of the difficulty of the recruiting process.

The USAR was given the mission to fill 45 of the slots for the MFO unit. The intent was to fill this mission through recruitment of members of the IRR. IRR volunteers were solicited by the Army Reserve Personnel Center (ARPERCEN). An operations order was issued on 20 March 1994, after which recruitment was initiated. The considerations were that the volunteer be a member of a particular MOS (mostly combat support or service support functions such as military police, personnel, finance, linguist) and that the volunteer had been separated either from active duty or a reserve unit for no more than 12 months (RT12 category). ARPERCEN reported making about 150 telephone calls per volunteer. Of the 39 soldiers identified to attend refresher training at Fort McCoy, there were 36 "shows" and 3 "no-shows" (due to orders not being sent, lost contact, and an arrest). Orders to report to Fort McCoy were cut by 18 May 1994.

Screening and Retention

The process. The USAR screening process was different from the ARNG process in a number of respects. Although ARPERCEN recruiters may have done some preliminary informal screening in determining who should attend training, in effect performance of IRR volunteers during the course of their Fort McCoy training served as the principal screening measure. This measure had relatively objective components, and the process was relatively compact and simplified. Also, it tended to be supplemental rather than administrative: decisionmakers could observe actual performance rather than merely relying on records.

Soldiers (n = 36) were in-processed on 12-13 June, given a diagnostic APFT, provided with refresher training, given a record APFT, and out-processed on 23 June. The battalion commander and command

sergeant major for Rotation 28 visited on 22 June and provided a background briefing on the Sinai mission. A U.S. Army Research Institute for the Behavioral and Social Science (ARI) survey of these IRR soldiers found that 58% had a previous full tour of active duty, 29% had served in a direct combat zone, and 64% had previous overseas military assignments.

The operation order for the 84th Division (Training) specified that they would provide refresher training for up to 50 IRR members who volunteered for the composite battalion (Rotation 28). The critical training areas were basic rifle marksmanship (day/night fire), the APFT, vehicle operations and maintenance, and common task training. Successful completion of the refresher training would ensure that the IRR have the requisite military skills needed for active duty. However, the training did not allow the IRR soldiers to demonstrate their ability to perform in their primary MOS. Thus, no MOS certification or requalification was required or expected during this refresher training.

A diagnostic APFT was given on 13 June. The importance of this test was not made clear to the soldiers prior to their arrival at Fort McCoy. Soldiers complained of insufficient lead time to prepare themselves physically. For the three events in the diagnostic APFT of 36 soldiers, 20 passed the push-up event, 17 passed the sit-up event, and 12 passed the run event.

On an overall basis, only 6 soldiers out of 36 tested passed this three-part test (the scoring convention requires a pass on each event). Master Physical Fitness trainers from the 84th Division (Training) developed individualized fitness programs designed to ensure the soldiers physical readiness prior to reporting to Fort Bragg months later. A record APFT was conducted on 23 June. For this test, 19 passed, 9 did not pass, and 9 were on profile.

One soldier on profile was sent home after the diagnostic test as a result of not meeting AR 600-9 standards (body fat). This left 35 soldiers to participate in the IRR refresher training.

For weapons qualification, 32 soldiers successfully qualified on the M16A/2 rifle: 3 as expert, 8 as sharpshooter, and 19 as marksman. The remaining two were on profile for injuries. Of the 30 soldiers tested for the land navigation class, 27 received a "GO" score and 3 a "NO GO;"

the remaining 5 were on profile for injuries. For the common tasks, a preassessment on the 13 common tasks selected for training demonstrated an overall 72% "GO" rate before any training was provided. Upon completion of the refresher training, all soldiers tested received a "GO" on each task.

Generally speaking, the IRR volunteers were highly motivated and seriously interested in the Sinai assignment. The limited information on the Sinai was insufficient, given the level of interest. The 3-month break prior to reporting to Fort Bragg for further predeployment activities was unfortunate, as the IRR volunteers had to take 2 weeks off from work, return for 3 months, and then depart again.

Upon completion of the refresher training, 23 IRR soldiers were recommended for continuation at Fort Bragg; 1 soldier was recommended as an alternate and 5 soldiers were not recommended for immediate participation in the mission but were identified as candidates with a successful APFT score. Finally, six soldiers were not recommended at all due mostly to poor scores on the APFT, lack of leadership skills, and failure to complete rifle marksmanship because of a profile condition. Tracking those who actually reported to Fort Bragg for the remainder of the predeployment training indicated that 10 soldiers joined the unit. Thus, of the original 36 soldiers reporting to Fort McCoy for IRR refresher training, only 28% ultimately became members of Rotation 28. The USAR made up the shortfall of 35 from the original target of 45 soldiers by recruiting from its troop program units.

Comments

The USAR process, perhaps even more dramatically than the ARNG experience, shows the immense effort required to produce even a small number of volunteers for this mission. Over 500 ARPERCEN contacts were required for every IRR volunteer who eventually became a member of Rotation 28. Considerable resources were expended on the training of 36 volunteers, only 10 of whom eventually joined the peacekeeping unit. The Fort McCoy training experience provided a good opportunity to screen based on direct observation of performance, but it also demonstrated that a substantial number of volunteers identified by the ARPERCEN recruiters were not prepared for the MFO experience. A

cost-effective prescreening measure administered prior to deploying volunteers to Fort McCoy, such as a short questionnaire addressing the volunteers' recent physical training and level of physical activity, combined with a realistic preview of the level of physical proficiency they would need to attain during the training experience, might have resulted in fewer APFT failures at Fort McCoy. Such prescreening would have placed even greater requirements on the recruiter in terms of the number of contacts required, but would have avoided the unpleasant surprise of finding that only 17% could pass the APFT upon arrival and that a significant number still had poor scores after training.

CONCLUSION

The staffing of the experimental unit created special challenges. New mechanisms had to be set in place, or old ones adapted, to accomplish a feat that was in many respects unique. In the most basic way that such a staffing effort can be evaluated, it was a success. The unit was eventually completely staffed. A sufficient number of volunteers were recruited to both make screening possible and to ultimately ensure that complete staffing was achieved. A reasonable screening process was developed and implemented.

But, as in any innovative effort, all of the potential problems could not be anticipated in advance. The process of filling such a unit with volunteers was not a familiar one to the organization. The amount of necessary communication and follow-up with volunteers was more apparent retrospectively than it could have been prospectively. Having had this experience, the ARNG has now learned a number of lessons concerning the importance of providing feedback to volunteers and their units concerning the results of the selection process, the details of the mission, and the projected schedule. Although the applicability of these lessons to the IRR situation is a little less clear, the IRR volunteers probably could also have benefited from more information about the details of the mission and more feedback and contact following their Fort McCoy training. It is difficult to know how much impact such communication would have had on their retention but, if nothing else, posttraining contact could have provided the unit an opportunity to obtain

a clearer indication of how many volunteers were actually intending to report to duty.

We now have adequate information about the need to allow prospective volunteers sufficient time to consider their decision. Lessons have also been learned about how to better integrate different elements of the staffing process—recruiting, screening, and predeployment retention, and the need for better standardization of the screening process. The degree to which these lessons result in improved staffing processes in the future depends on a number of factors, including the following: (a) communicating the lessons learned to those involved in future missions of this kind, (b) developing procedures which can enhance communication, coordination, and standardization in recruiting, screening, and retaining volunteers, and (c) finding the means to implement these procedures.

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5

PERSONNEL PROFILE: SOLDIERS OF THE 28TH ROTATION

Beatrice J. Farr

INTRODUCTION

The purpose of this chapter is to describe the demographic and personnel characteristics of the volunteers.

Research Question

The personnel profile of the 28th Rotation provides a snapshot of Reserve Component (RC) volunteers and Active Component (AC) soldiers just prior to the beginning of their Sinai mission. We collected data on variables that could have an impact on mission performance. Specifically, we wished to determine how these two groups looked in terms of age, years of military service, marriage and family, education, training background, previous employment, and their plans for returning to their former jobs.

METHOD

Sample

The data presented here are based on responses from 407 RC soldiers and 98 AC soldiers during the predeployment phase of the mission (See Chapter 2 for more details).

Analysis

Each item was analyzed separately and is so reported in the results section of this chapter. The overall percentages are given in the text, and the differences between RC and AC soldiers are presented in accompanying figures and tables.

RESULTS

Demographics

Age. As shown in Figure 5-1, soldiers participating in the 28th Rotation ranged in age from 18-55. The RC were 20-48, with 80% falling between 20-34. The most frequently occurring age was 23. The AC had a somewhat wider age range—from 18-55—with 80% falling between 18-30, and 25 the most common age.

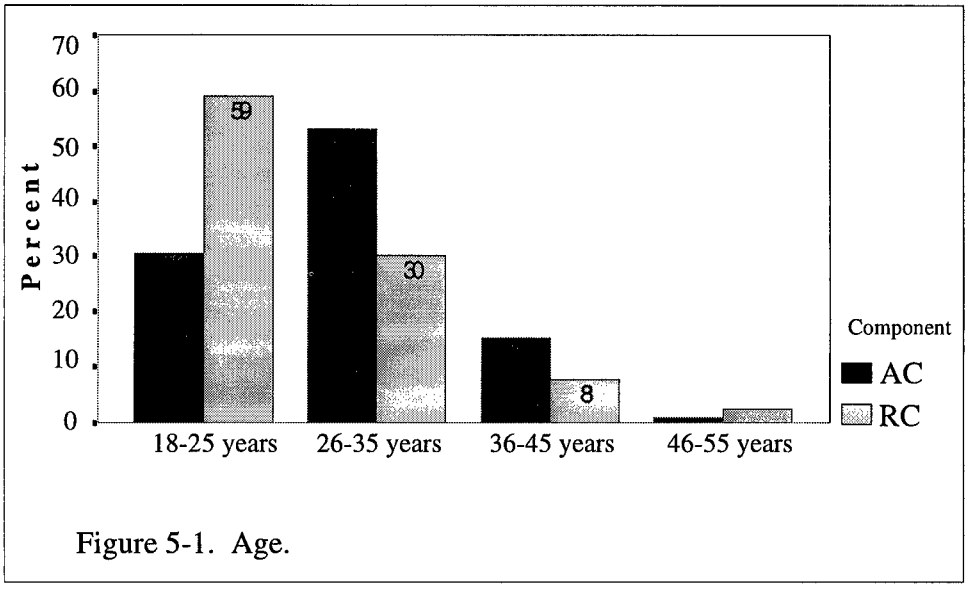

Figure 5-1. Age.

Sex. Ninety-nine percent of the 28th Rotation were male. There were only five female soldiers, three RC and two AC. This represents a substantially lower proportion than is true, overall, for women in the Army.

Race and Hispanic origin. The overall racial composition of Rotation 28 consists of 77% White, 13% Black, 1% Asian or Pacific Islander, 2% Native American, and 5% other. Of those who reported themselves to be Hispanic, 3% were Puerto Rican, and less than 1% each were Mexican American, Cuban, or other Hispanic. The percentage of Blacks was somewhat higher (18%) in the RC than in the AC (12%).

Highest grade level completed. Virtually all members of the 28th Rotation had at least a high school, GED, or other equivalent diploma. Ninety-eight percent of the RC and 100% of the AC had at least a high school level education. Eleven percent of the RC and 23% of the AC had a bachelor's degree or higher.

RC volunteer states. The RC soldiers from the 28th Rotation came from a very wide geographical distribution, originating from 35 states and the District of Columbia, as shown in Figure 5-2.

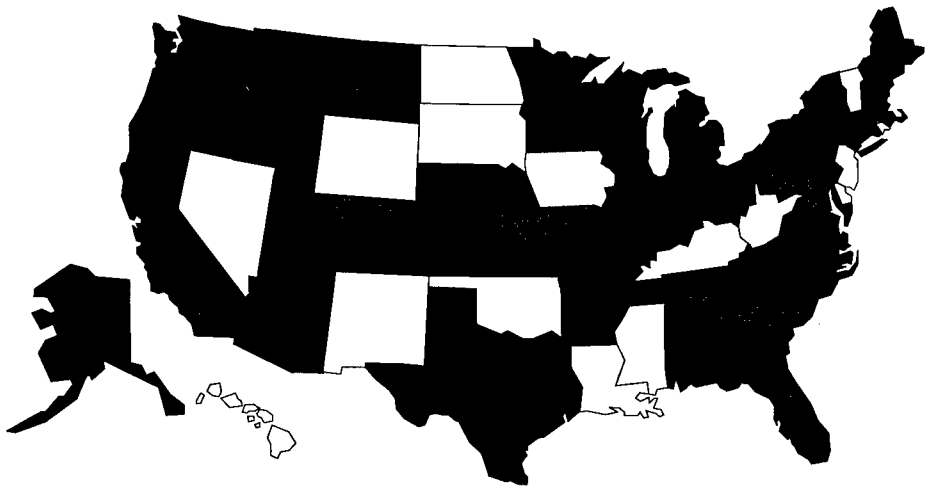

Figure 5-2. RC volunteer states (shaded).

Location when growing up. The RC and AC grew up in virtually identical surroundings—30% in rural or farming communities, 34% in the suburbs, and roughly 25% in cities.

Enlisted ranks. The 28th Rotation was intentionally constituted so that less than 1% were PV1s, 2% were PV2s, 12% were PFCs, 46% were

SPCs, 6% were CPLs, 18% were SGTs, 11% were SSGs, and 4% were SFCs. Among the RC enlisted ranks, 14% were PFCs, 54% were SPCs 6% were CPLs, 14% were SGTs, 6% were SSGs, and 2% were SFCs. The comparable percentages for the AC were 3, 8, 5, 38, 31, and 14, respectively.

Officer ranks. The distribution of officers was also intentionally constituted to consist of: 11% 2LTs, 47% 1LTs, 34% CPTs, and 5% MAJs. The RC officers included three 2LTs, eight 1LTs, nine CPTs, and one MAJ. The AC officers included 1 2LTs, 10 1LTs, 4 CPTs, 1 MAJ, and 1 LTC.

Family

Marital/engagement status. As shown in Figure 5-3, 56% of the sample reported that they were single and had never been married; 26% were married for the first time; 6% were divorced and remarried, and 10% were separated or divorced. AC soldiers were twice as likely to be married (56% vs. 28% for the RC). Similarly, 62% of the RC are single, compared to only 32% of the AC. The divorce rate among the AC is also somewhat higher than that of the RC (8% vs. 6%). Nearly half (47%) of the soldiers were engaged or had an important boyfriend or girlfriend. Seventy percent of the single AC soldiers reported that they were engaged, versus 45% of the RC soldiers.

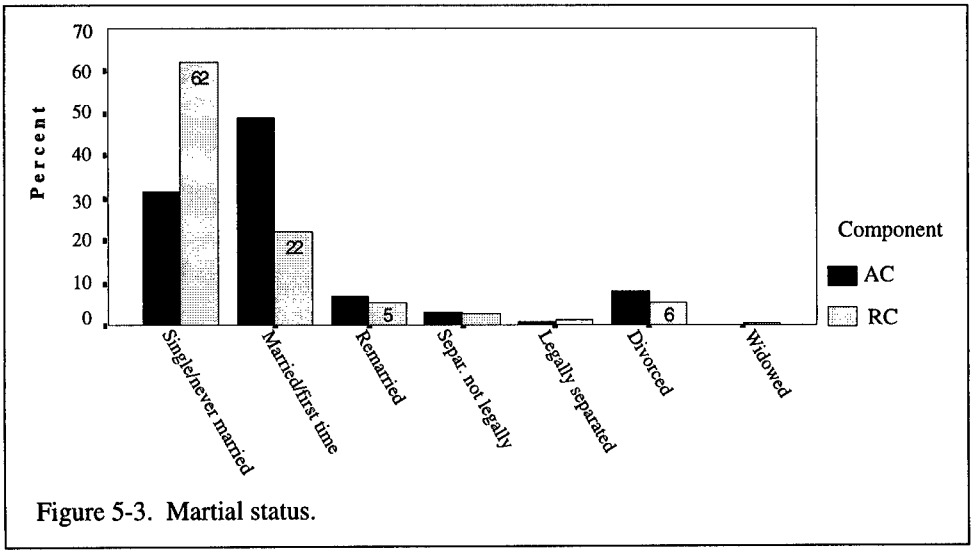

Figure 5-3. Martial status.

Spouse/important girlfriend/boyfriend employment status. Overall, 38% of spouses or significant others were employed as civilians, 19% were in school, and 4% were Active Duty military. RC wives and significant others were more likely to be employed as civilians (41% RC vs. 32% AC). Only 2% of the RC spouses/important boyfriend or girlfriend were active duty military, compared to 15% for the AC.

Number of dependent children. Overall, a substantial majority of the soldiers (65%) had no dependent children at all. RC soldiers were younger than AC soldiers and fewer of them were married. Those who were married also had fewer children. Seventy percent of the RC and 41% of the AC had none. Twenty-nine percent of the RC and 54% of the AC had between one and three children.

Number of dependent children/others in residence. Most (71%) of the participants did not reside with any dependent children. The AC had considerably more dependent children living with them than did the RC (48% vs. 25%), but there was no real difference in the number of other dependents living with them. About 20% had one or two such dependents.

Military Experience

Primary/secondary Military Occupational Specialty (MOS). Many different MOSs are represented within the ranks of the RC and AC (RC had 22 Primary and 42 Secondary MOSs and the AC had 7 and 6, respectively).

Full tour of active duty in the Regular Army. Overall, 39% of the soldiers had previously completed a full tour in the Active Army, as shown in Figure 5-4. However, the difference between the AC and the RC was very substantial. Whereas the majority (74%) of the RC had never completed a full tour of active duty, nearly all (96%) of the AC had.

Prior Sinai rotation. The 28th Rotation had not had a great deal of prior Sinai experience; overall, only 5% had served on an earlier mission (22% of the AC and 1% of the RC).

Direct combat experience. The Army defines direct combat as engaging the enemy on the ground with individual- or crew-served weapons while being exposed to hostile fire and to a high probability of

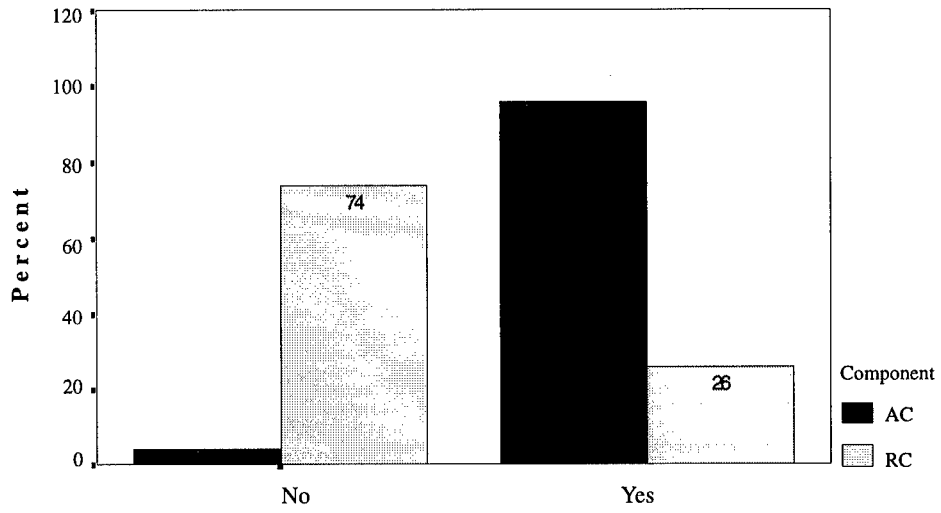

Figure 5-4. Tour of active duty.

direct physical contact with the hostile force's personnel and/or substantial risk of capture. Using that definition, 26% of the soldiers served, at some time or other, in a direct combat zone (15% of the RC and 49% of the AC).

Prior overseas assignment. Somewhat less than half (45%) were previously deployed on overseas assignments, but a majority of the RC (63%) had never served overseas. The reverse is true for the AC; i.e., 78% had overseas assignments before their Sinai mission, as shown in Figure 5-5.

Attitude toward overseas assignments. Both groups were quite enthusiastic about overseas tours in general. Overall, 91% felt either very or somewhat positive (94% of the RC and 78% of the AC).

Combat training site. Soldiers of Rotation 28 received their combat training at three major training sites (i.e., The National Training Center, The Joint Readiness Training Center (JRTC), and The Combat Maneuver Training Center). The majority of the AC (60%) trained at the JRTC, but most (44%) of the RC got their combat training at locations other than the three major centers, as shown in Figure 5-6.

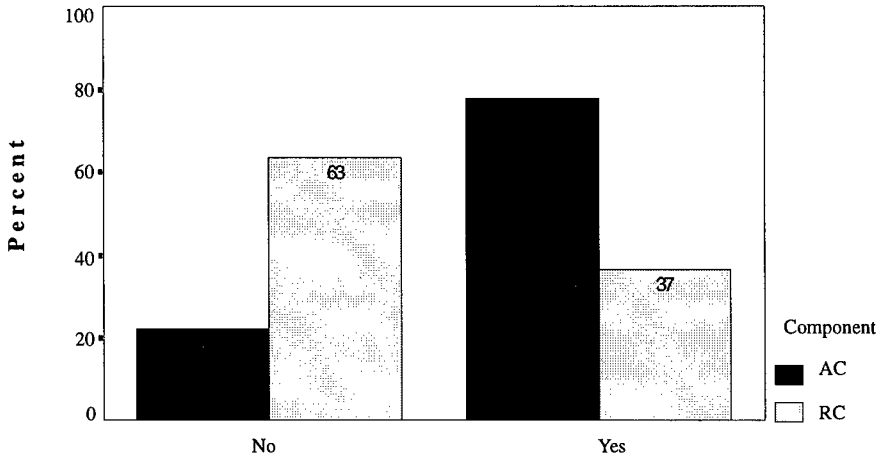

Figure 5-5. Prior overseas assignment.

Employment

Employment status prior to mission. Prior to reporting for their Sinai mission, 45% of the RC soldiers were employed full-time (i.e. more than 35 hours per week), 13% were employed part-time (less than 35 hours per week), 20% were unemployed, and 22% were attending school.

Full-time jobs since 18th birthday. The figures for the AC and RC were quite similar. Overall, since their 18th birthday, 17% of the soldiers had never held a full-time job, 35% had held one or two, 28% had held three or four, 11% had held five or six, and 9% had held more than six.

Number of unemployed periods since 18th birthday. The periods of unemployment were also similar for AC and RC soldiers. Overall, since their 18th birthday, 48% of the soldiers had never been unemployed for more than 3 months, 23% had been unemployed once for that length of time, 10% twice, 7% three times, 5% four times, 1% five times, and 6% six or more times.

Plans to return to former job. Of those who responded to the question on whether they planned to return to their former civilian job after completing their Sinai mission, 36% indicated that they would, 20% would not, and 25% were not sure.

Ease of returning to former job. In response to the question about how easy they thought it would be to return to their former job, 26%

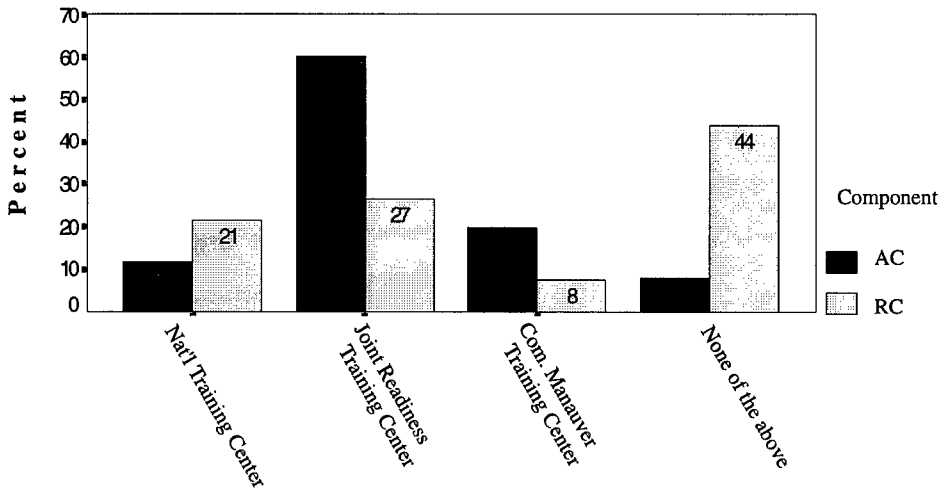

Figure 5-6. Army combat training centers.

indicated that they were not employed or did not intend to return, 40% thought it would be very easy, 13% thought it would be easy, 9% felt it would be neither easy nor difficult, 3% thought it would be difficult, 2% thought it would be very difficult, and 7% were not sure, as shown in Figure 5-7.

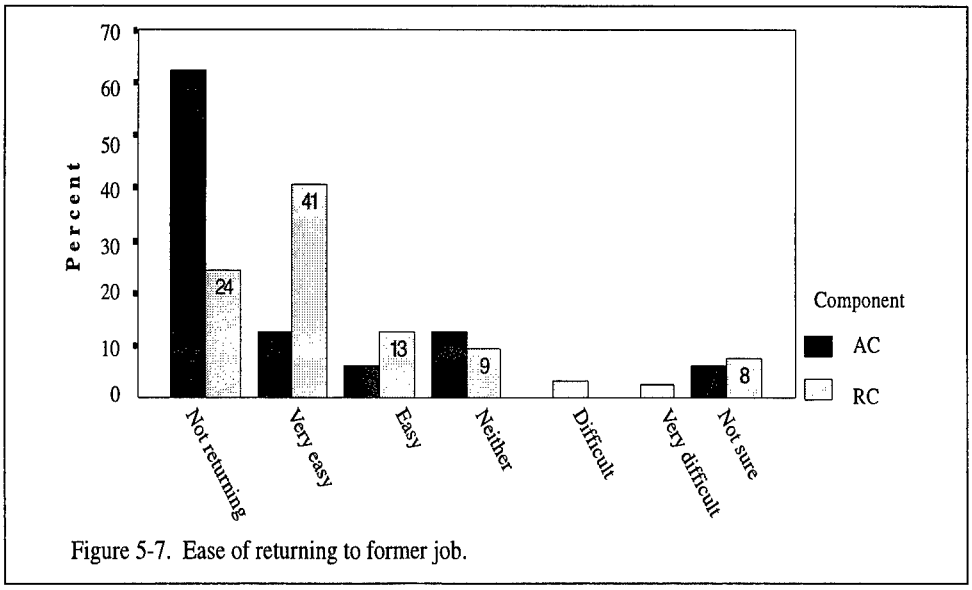

Figure 5-7. Ease of returning to former job.

SUMMARY AND CONCLUSIONS

Virtually all soldiers were male and at least a high school graduate; more were single than were married; and most did not have dependent children. There were no substantial differences between RC and AC soldiers in age, education, and spouse employment. Although the majority of the AC had served on an overseas tour, the majority of the RC had not; all of the soldiers were positive about overseas tours, especially in the Sinai. Nearly half (49%) of the AC had direct combat experience, as opposed to 15% for the RC.

6

REASONS FOR VOLUNTEERING AND ANTICIPATED DEPLOYMENT EFFECTS

Laurel W. Oliver
Ronald B. Tiggle
Stephanie M. Hayes

INTRODUCTION

The purpose of this chapter is to document deployees' predeployment status. We present the reasons soldiers gave for volunteering for the deployment and also summarize their expectations for deployment effects on various aspects of their lives at this predeployment point.

Research Questions

The major research questions explored in this chapter are described below.

1. Reasons. What are the reasons Reserve Component (RC) soldiers give for volunteering for this peacekeeping deployment?

2. Anticipated effects. What effects do soldiers, both RC and Active Component (AC), expect the deployment to have on various aspects of their lives? Before they deploy, how do soldiers expect the deployment to affect the following:

- physical health
- emotional well-being
- civilian job/career

- military career
- marriage
- adjustment to spouse upon return
- children
- likelihood of volunteering for future operations
- likelihood of remaining in the military

3. Predeployment status. At this predeployment point, what are soldiers' career intentions, educational aspirations, organizational commitment, and marital/family status?

METHOD

In this section, we describe the variables we analyzed. See Oliver, Tiggle, and Hayes (in press) for a copy of the survey (Background and Training Questionnaire) containing these items. Unless otherwise noted, all variables are from this survey.

Reasons for Volunteering

A checklist of reasons for volunteering contained 15 items: 14 specific categories (e.g., medical benefits, challenging work, adventure/travel) plus an "other" category. Respondents rated each reason on a 5-point Likert scale from Very Unimportant to Very Important. There was also a Not Applicable option.

Life Course Variables

Expected effects of Sinai deployment. Previous research (e.g., Card, 1983; Ivie, Gimbel, & Elder, 1991) has shown that life course events such as military service have long-term as well as short-term effects on people's lives. To tap into some of these changes, survey respondents were asked to rate the anticipated effects of the deployment on the various aspects of life enumerated in the first research question. The

ratings were on a 5-point Likert scale ranging from Very Unimportant to Very Important plus a Not Applicable option. The survey also included a general item asking soldiers how they felt about going to the Sinai, also on a 5-point scale from Very Negative to Very Positive.

Organizational commitment. The commitment variable was operationalized in a 15-item scale based on the (Meyer and Allen, 1984; Allen & Meyer, 1990) measure of organizational commitment. The Meyer and Allen instrument was modified by substituting "the military" for "my organization" and deleting one item which did not apply to military careers. We also reworded reverse-coded items so that all items read in a positive direction. We used two of the three subscales that Meyer and Allen identified in their instrument.[1] These two scales were: *affective commitment*, which is the emotional attachment the respondent feels for the organization,[2] and *continuance commitment*, which assesses the costs to the person of leaving the organization.[3] The respondent rates each item on a 5-point Likert scale from Strongly Disagree to Strongly Agree. The set of items constituting the organizational commitment variable is entitled "Army Organization" in the "Background and Training Questionnaire." (Oliver et al., in press).

Career intentions. Intentions concerning making a career in the military were measured on a 6-point scale representing the length of time the respondent expected to remain in the military. This item was based on the Propensity to Stay measure of Teplitzky (1991) but was adapted to be appropriate for RC personnel as well as AC soldiers.

Educational and travel aspirations. Three items related to the respondent's educational aspirations. One asked for the highest educational level the respondent had attained to date, another asked about expectations for acquiring additional education, and a third asked about plans for taking courses while in the Sinai. Another item asked

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1 We did not use a third subscale of this instrument, normative commitment, as it was not relevant for our purposes.
2 Teplitzky (1991) used the Meyer and Allen (1984) affective dimension in her measure of organizational identification, substituting the Army for my organization. Teplitzky also used reverse coding for four of the seven items in her scale.
3 The costs of leaving the organization involve considerations such as the disruption to ones life and the difficulty of obtaining another job.

respondents whether or not they planned to travel outside the Sinai during their deployment.

Marital/family status. An item concerning marital status ascertained whether or not the respondent had a spouse. Another item asked the respondent how many dependent children he/she had. A third item in another survey ("Family and Finance Questionnaire") administered at the same time asked for an assessment of the quality of the relationship.

Analyses

The analyses for the research reported here involved predeployment data. Results are generally reported for the entire sample. Where appropriate and of interest, results are broken out by employment status, by component (RC and AC), or by rank (junior enlisted, noncommissioned officers [NCOs], and officers).

We investigated subgroup differences (component, rank, employment status) using the analysis of variance (ANOVA) procedure. For rank comparisons, which involved three groups, Tukey's Honestly Significant Difference technique was used to test for significance. We present these comparison data, however, with two cautions: (1) Substantive, not necessarily statistically significant, differences are the important ones (Cohen, 1994); (2) These results involve a considerable number of tests based on a limited number of people.

FINDINGS

Reasons for Volunteering

Overall results. Table 6-1 contains means and standard deviations of importance ratings by the RC soldiers on their reasons for volunteering. Because most of the AC soldiers did not truly volunteer for the deployment, AC comparisons with the RC do not seem meaningful for this variable.[4] As can be seen in the table, the most highly rated reasons

4 The AC respondents, however, were very positive about going to the Sinai, even though most of them were not volunteers in the usual sense. About 86% of the AC soldiers responded that they were very or somewhat positive about deploying, compared to 96% of the RC soldiers. A larger proportion of the AC (10%) than the RC (3%) were neutral about deploying.

(over 4.0 on a 5-point scale) were adventure, challenging work, serving one's country, and career advancement. The lowest rated reasons were being unemployed, family pressures/problems, and getting away from a bad neighborhood. In-between ratings were generally associated with various benefits and the need for more money.

Table 6-1

Reserve Component (RC) Reasons for Volunteering for Deployment

Reason[a]	*N*	Mean	(SD)[b]
Adventure/travel	401	4.42	(.93)
Challenging work/learn new skills	402	4.25	(.97)
Serve country/serve Army	400	4.15	(1.01)
Military career advancement/promotion	401	4.07	(1.06)
Educational course credit	396	3.70	(1.18)
Needed more money	401	3.66	(1.24)
Earn points toward retirement	402	3.50	(1.27)
Dental benefits	401	3.39	(1.22)
Medical benefits	402	3.38	(1.20)
Montgomery G.I. Bill benefits	399	3.24	(1.33)
Take time out from school/job	402	3.02	(1.37)
Was unemployed	393	2.23	(1.40)
Family pressures/problems	399	2.17	(1.27)
Get away from bad neighborhood	396	1.87	(1.20)

[a] In descending order of importance.
[b] Rated on 5-point scale (1 = very unimportant to 5 = very important).

Some of the reasons written in under the "other" category included: "get into good shape for college athletics," "take time off from girlfriend," and "missed the Army."

Comparisons by rank. In Table 6-2, we present reasons for volunteering broken out by rank (junior enlisted personnel, NCOs, and officers). In general, differences were not great even if they were statistically significant. Junior enlisted and NCOs rated benefits and "educational course credit" more highly than did officers. Junior enlisted

Table 6-2

Reserve Component Reasons for Volunteering for Deployment by Rank

Reasons	Rank: Junior enlisted N	Junior enlisted Mean	Junior enlisted (SD)a	NCOs N	NCOs Mean	NCOs (SD)a	Officers N	Officers Mean	Officers (SD)a	Differences[b]
Earn retirement points	289	3.50	(1.25)	89	3.54	(1.32)	21	3.33	(1.46)	J=N=O
Medical benefits	289	3.40	(1.17)	89	3.47	(1.20)	21	2.67	(1.49)	J&N>O
Dental benefits	289	3.42	(1.19)	88	3.44	(1.21)	21	2.71	(1.55)	J&N>O
G.I. Bill benefits	286	3.35	(1.29)	89	3.01	(1.32)	21	2.14	(1.42)	J&N>O
Challenging work/ learn new skills	290	4.20	(1.01)	88	4.35	(.83)	21	4.52	(.93)	J=N=O
Career advancement/ promotion	288	4.11	(1.06)	89	3.91	(1.07)	21	4.00	(1.10)	J=N=O
Serve country/ serve Army	287	4.11	(1.02)	89	4.20	(.98)	21	4.48	(.68)	J=N=O
Adventure/travel	288	4.43	(.93)	89	4.35	(1.01)	21	4.52	(.60)	J=N=O
Educational courses	284	3.80	(1.19)	88	3.65	(1.03)	21	2.57	(1.12)	J&N>O
Needed more money	288	3.82	(1.18)	89	3.29	(1.36)	21	3.19	(1.25)	J>N&O
Was unemployed	282	2.27	(1.40)	87	2.21	(1.45)	21	2.00	(1.30)	J=N=O
Take time out from school/job	290	3.05	(1.36)	88	2.90	(1.29)	21	3.10	(1.76)	J=N=O
Family pressures/ problems	288	2.23	(1.26)	88	2.12	(1.35)	20	1.70	(1.08)	J=N=O
Get away from bad neighborhood	286	1.92	(1.20)	87	1.85	(1.27)	20	1.20	(.62)	J>N&O

[a]Rated on 5-point scale (1 = very unimportant to 5 = very important). Differences significant at $p < .05$.
[b]J = Junior enlisted; N = NCOs; O = Officers.

also ranked "needed more money" and "get away from a bad neighborhood" higher than the other two groups. On the remaining reasons, the three groups did not differ significantly from each other.

Comparisons of employed and unemployed RC soldiers. There were relatively few differences between soldiers who had been employed and those who had not been employed before volunteering. As can be seen in Table 6-3, employed soldiers ranked "adventure/travel" significantly lower than did soldiers who had not been employed. Greater differences occurred on "needed more money" and "was unemployed," both of which employed soldiers ranked significantly lower than did unemployed soldiers.

Anticipated Effects of Deployment

Before they deployed, soldiers were asked to indicate how they expected various aspects of their lives to change as a result of the deployment to the Sinai. Tables 6-4 and 6-5 contain the means and standard deviations for soldier expectations for various life aspects. The 5-point scale ranged from "Strongly Disagree" to "Strongly Agree."

Table 6-4 shows findings for the entire sample and for the two components. Soldiers' expectations for deployment effects were positive, averaging 3.74 over all effects on the 5-point scale. Expectations for effects on marriages and families were somewhat less positive (3.27), with other effects perceived more favorably (3.94).

As can be seen in Table 6-4, physical health and military career were the aspects of their lives that soldiers in the entire sample and in both components expected to be most positively affected. In general, the RC soldiers expected more positive outcomes than did AC soldiers. Significant differences between components (RC>AC) occurred on expectations for physical health, emotional well-being, and several outcomes related to military careers and military service.

Table 6-5 contains data on the deployment effects expected by the various rank groups. There were some significant differences between expectations of the junior enlisted personnel and those of NCOs and officers. For example, junior enlisted anticipated more positive outcomes for physical health and emotional well-being as well as for benefits to

Table 6-3

Reserve Component Reasons for Volunteering for Deployment by Employment Status

Reasons	Employment Status: Employed			Employment Status: Not employed			Differences[b]
	N	Mean	(SD)[a]	*N*	Mean	(SD)[a]	
Earning retirement points	215	3.56	(1.21)	54	3.19	(1.37)	E=NE
Medical benefits	215	3.40	(1.18)	54	3.26	(1.14)	E=NE
Dental benefits	214	3.41	(1.20)	54	3.30	(1.19)	E=NE
G.I. Bill benefits	214	3.20	(1.33)	53	3.17	(1.27)	E=NE
Challenging work/ new skills	214	4.28	(.93)	54	4.37	(.90)	E=NE
Career advancement/ promotion	215	4.07	(1.06)	54	4.04	(.91)	E=NE
Serve country/Army	213	4.21	(.94)	54	4.15	(.88)	E=NE
Adventure/travel	216	4.42	(.90)	54	4.70	(.54)	E<NE ($p < .004$)
Educational course credit	211	3.74	(1.11)	54	3.70	(1.25)	E=NE
Needed more money	215	3.47	(1.30)	54	4.33	(.70)	E<NE ($p < .0001$)
Was unemployed	209	2.01	(1.30)	54	3.56	(1.31)	E<NE ($p < .0001$)
Take time out from school/job	214	3.09	(1.37)	54	2.87	(1.28)	E=NE
Family pressures/ problems	213	2.14	(1.28)	54	2.43	(1.31)	E=NE
Get away from bad neighborhood	212	1.89	(1.22)	54	1.94	(1.11)	E=NE

[a]Rated on 5-point scale (1 = very unimportant to 5 = very important).
[b]E = soldiers who had been employed before volunteering; NE = soldiers who had not been employed before volunteering.

Table 6-4

Anticipated Effects of Deployment on Life Aspects by Component

	All soldiers			Reserve Component			Active Component			
Aspects	*N*	Mean	(SD)[a]	*N*	Mean	(SD)[a]	*N*	Mean	(SD)[a]	Differences[b]
Physical health	491	4.50	(.81)	385	4.62	(.69)	91	3.97	(1.05)	R>A (p<.0001)
Emotional well-being	483	3.74	(1.02)	380	3.88	(.99)	88	3.19	(.93)	R>A (p<.0001)
Civilian job/career	414	3.16	(1.26)	361	3.16	(1.27)	39	3.18	(1.07)	R=A
Military career	489	4.39	(.76)	382	4.50	(.68)	92	3.95	(.93)	R>A (p<.0001)
Marriage	368	3.27	(1.23)	287	3.26	(1.22)	71	3.18	(1.27)	R=A
Adjusting upon return	296	3.45	(1.28)	221	3.42	(1.29)	68	3.62	(1.20)	R=A
Children	252	3.27	(1.16)	186	3.32	(1.12)	59	3.03	(1.29)	R=A
Volunteering in future	480	3.91	(1.18)	382	4.04	(1.11)	83	3.22	(1.29)	R>A (p<.0001)
Willingness to to stay in Army	469	3.96	(1.02)	378	4.04	(.99)	76	3.49	(1.11)	R>A (p<.0001)

[a]Rated on a 5-point scale ranging from 1 = very negative or undesirable effect to 5 = very positive or desirable effect.
[b]R = Reserve Component; A = Active Component. The sum of R and A soldiers does not equal the total because some soldiers did not identify their component.

Table 6-5

Anticipated Effects of Deployment on Life Aspects by Rank

	Rank									
	Junior enlisted			NCOs			Officers			
Aspects	*N*	Mean	(SD)[a]	*N*	Mean	(SD)[a]	*N*	Mean	(SD)[a]	Differences[b]
Physical health	300	4.63	(.68)	151	4.26	(.94)	39	4.28	(1.00)	J>N&O
Emotional well-being	295	3.90	(.97)	151	3.46	(1.04)	34	3.65	(1.04)	J>N=O
Civilian job/career	282	3.26	(1.25)	106	2.99	(1.20)	22	2.86	(1.52)	J=N=O
Military career	298	4.50	(.68)	150	4.24	(.86)	39	4.15	(.81)	J>N&O
Marriage	222	3.24	(1.23)	118	3.31	(1.26)	25	3.20	(1.08)	J=N=O
Adjusting quickly upon return	160	3.38	(1.33)	114	3.47	(1.24)	21	4.00	(1.00)	J=N=O
Children	128	3.36	(1.21)	107	3.20	(1.12)	14	3.36	(1.01)	J=N=O
Volunteering in future	296	4.02	(1.16)	144	3.62	(1.23)	38	3.95	(1.06)	J=O>N
Willingness to stay in the Army	298	4.03	(.99)	131	3.70	(1.11)	37	4.22	(.79)	J&O>N

[a]Rated on a 5-point scale ranging from very negative or undesirable effect to very positive or desirable effect.
[b]J=Junior enlisted; N=NCOs; O=Officers. Differences significant at $p < .05$.

their military careers and willingness to volunteer in the future. Junior enlisted and officers expected to be more willing to stay in the Army than did the NCOs.

Another item, not shown in the tables, is the general item relating to how positively the soldier felt about going to the Sinai. The overall mean was 4.69 on a 1-5 scale, with means for all component and rank groups uniformly high.

Organizational Commitment

Predeployment scores for the two scales of the organizational commitment measure can be found in Table 6-6. The overall mean for affective commitment (emotional attachment to the organization) was 3.48 on a 5-point scale, and the overall mean for continuance commitment (perceived costs of leaving the military) was 2.76. The RC and AC soldiers did not differ on either type of commitment. The only significant commitment difference we found between groups occurred in

Table 6-6

Predeployment Organizational Commitment

	Commitment					
	Affective			Continuance		
Group	*N*	Mean	(SD)	*N*	Mean	(SD)
All soldiers	506	3.48	(.58)	499	2.76	(.90)
Component						
Reserve	398	3.49	(.58)	392	2.73	(.89)
Active	93	3.44	(.60)	92	2.87	(.88)
Rank						
Junior enlisted	307	3.46	(.55)	300	2.81	(.88)
NCOs	157	3.46	(.64)	156	2.73	(.91)
Officers	38	3.77*	(.44)	39	2.47	(.89)

*Officers differ significantly (p <.05) from other ranks on this variable.

the comparisons by rank for affective commitment: officers scored significantly higher on affective commitment than did either junior enlisted soldiers or NCOs. We did not find any significant differences among the three rank groups on continuance commitment.

Career Intentions

Table 6-7 contains predeployment career intentions for the soldiers who deployed to the Sinai. Note that the original response options to the career plans items were collapsed into three categories: (1) those who had already been in for 20 years or planned to stay in until or beyond 20 years, (2) those who were undecided about their career plans, and (3) those who planned to leave before 20 years.

Component differences on career intentions were small. A slightly larger percentage of RC than AC were undecided about their career plans (33% vs. 26%), and a smaller percentage of RC than AC were planning to stay in the military until or beyond a 20-year retirement (55% vs.

Table 6-7

Predeployment Career Intentions

	Stay until/beyond 20 years		Undecided		Retire before 20 years	
Group	*N*	(%)	*N*	(%)	*N*	(%)
All soldiers	284	(56)	161	(32)	60	(12)
			Component			
Reserve	216	(55)	131	(33)	49	(12)
Active	59	(62)	25	(26)	11	(12)
			Rank			
Junior enlisted	143	(47)	118	(38)	46	(15)
NCOs	115	(74)	29	(19)	11	(7)
Officers	25	(64)	11	(28)	3	(8)

Note. Percentages may not total to 100% because of rounding error.

62%). There was no difference between components in the percentage of soldiers planning to retire before 20 years (each 12%).

Because the number of officers was so small when distributed across the three career intentions categories, comparisons by rank for this group are inconclusive. The youngest group, junior enlisted soldiers, were least likely to stay until or beyond 20 years, were most undecided about staying, and were most likely to plan to retire before 20 years.

Educational Status and Aspirations

Tables 6-8 and 6-9 relate to deployees' predeployment educational status and educational aspirations. Table 6-8 contains data for the entire sample and for the two components. Differences between components were generally minimal. A larger proportion of AC soldiers (24%) held a

Table 6-8

Predeployment Educational Status and Educational Aspirations for all Soldiers by Component

		Component	
Educational variables	All soldiers	Reserve	Active
	Present educational status		
Less than bachelor's degree	86%	89%	76%
Bachelor's degree	10%	7%	20%
Higher than bachelor's degree	4%	4%	4%
	Future educational plans		
Less than bachelor's degree	47%	48%	43%
Bachelor's degree	27%	26%	27%
Higher than bachelor's degree	26%	26%	30%
	Deployment plans		
Take educational courses	82%	81%	88%
Plan to travel	95%	97%	86%

Note. Percentages may not total to 100% because of rounding error.

bachelor's degree or higher than did the RC soldiers (11%), and a somewhat larger proportion of RC soldiers planned to travel during deployment than did AC soldiers (97% vs. 86%).

Larger differences are found in Table 6-9, which contains data for the three rank groups. As the table shows, 93% of the officers held a bachelor's degree or higher, while fewer than 6% of the junior enlisted and 11% of the NCOs were at this educational level. With respect to future educational plans, 89% of the officers anticipated eventually obtaining an advanced or professional degree compared to the 24% of junior enlisted and the 16% of NCOs who aspired to this educational level. Fewer officers planned to take educational courses for credit (61%) in the Sinai than did either junior enlisted soldiers (82%) or NCO's (87%). Very large proportions of all groups planned to travel while on the Sinai deployment (100% of officers, 90% of NCOs, and 96% of junior enlisted).

Table 6-9

Predeployment Educational Status and Educational Aspirations by Rank

	Rank		
Educational variables	Junior enlisted	NCOs	Officers
	Present educational status		
Less than bachelor's degree	95%	89%	8%
Bachelor's degree	5%	7%	62%
Higher than bachelor's degree	<1%	4%	31%
	Future educational plans		
Less than bachelor's degree	50%	52%	5%
Bachelor's degree	26%	32%	5%
Higher than bachelor's degree	24%	16%	89%
	Deployment plans		
Take educational courses	82%	87%	61%
Plan to travel	96%	90%	100%

Note. Percentages may not total to 100% because of rounding error.

Marital and Family Status

Marital status. Table 6-10 shows that 36% of all the deployed soldiers were married at the time of the predeployment data collection. About twice as many AC were married as RC, with the lowest proportion of marriages found among junior enlisted (22%) and larger proportions found in the officer (44%) and NCO (62%) groups. However, age is confounded with marital status since junior enlisted were younger (mean = 24) than either officers (mean = 30) or NCOs (mean = 32).

Dependent children. The same pattern found for marital status was duplicated in the results for number of dependent children. As can be seen in Table 6-10, AC soldiers reported more dependent children than did RC soldiers, while junior enlisted personnel had fewer dependent children than either officers or NCOs. Again, this variable is confounded with age and marital status.

Spouse support. In general, the various subgroups reported relatively high levels of spouse support for the soldier's going on the MFO deployment. Table 6-10 shows that 80% of the entire married sample reported positive ("supportive" or "very supportive") support. About 82% of RC soldiers and 75% of AC soldiers reported positive support, while 83% of junior enlisted, 76% of NCOs, and 88% of officers reported this level of support.

Quality of relationship. All groups reported moderately high levels of marital happiness. Table 6-10 shows that the overall mean was 5.29 (on a 7-point scale). Component means were 5.14 for the RC and 5.56 for the AC. Rank means were 5.29 (junior enlisted), 5.20 (NCOs), and 5.75 (officers).

DISCUSSION

Reasons

The most popular reasons for volunteering by the RC soldiers were service, adventure, and work/career challenge and advancement. Various benefits (medical, dental, retirement) and the need for more money received modest ratings of importance. Respondents rated as lowest in importance reasons such as time out from school/job, family problems, and unemployment.

Table 6-10

Predeployment Marital/Family Status

	Variable						
	Marital status[a]	Number dependent children[b]			Positive spouse support[c]	Quality of marriage[d]		
Group	Number married	1-2	3-4	5-6	Number of spouses	*N*	*Mean*	*(SD)*
All soldiers	188 (36%)	137 (17%)	34 (7%)	3 (<1%)	122 (80%)	143	5.29	(1.67)
				Component				
Reserve	128 (31%)	91 (23%)	25 (6%)	1 (<1%)	84 (82%)	91	5.14	(1.66)
Active	58 (60%)	43 (47%)	9 (10%)	2 (2%)	37 (75%)	52	5.56	(1.68)
				Rank				
Junior enlisted	69 (22%)	56 (18%)	13(4%)	0	44 (83%)	42	5.29	(1.47)
NCOs	100 (62%)	68 (42%)	19 (12%)	3 (2%)	62 (76%)	84	5.20	(1.71)
Officers	17 (44%)	11 (28%)	2 (5%)	0	14 (88%)	16	5.75	(2.02)

[a]Includes soldiers currently married or remarried; does not include those reporting they were widowed or divorced.
[b]Percent of entire group reporting this number of children.
[c]Number rating supportiveness of spouse of MFO deployment as "supportive" or "very supportive." Includes married or remarried respondents. Does not include those reporting they were separated.
[d]Rating of happiness of marriage at the present time on 7-point scale (1=very unhappy to 7=very happy). Includes married or remarried respondents. Does not include those reporting they were separated.

Differences among the various RC groups seemed more related to age or educational level than to component or rank. Junior enlisted personnel, for example, rated the importance of "take time out from school/job" higher than NCOs and officers. The more highly educated officers, on the other hand, rated educational course credit lower than the other two rank groups.

Employment status of the RC soldiers prior to volunteering seemed related to some reasons. Soldiers who had been unemployed before volunteering for the deployment rated "needed more money" and "was unemployed" significantly higher than soldiers who had been previously employed.

Effects on Various Aspects of Soldiers' Lives

Anticipated effects. In general, all soldiers expected the effects of the deployment on various aspects of their lives to be neutral (no change) to highly positive. Although the RC soldiers tended to be more positive than AC soldiers about anticipated effects, the pattern for both groups was similar. That is, the most positive effects were expected for the same variables by both components. Because the RC soldiers were volunteers, it seems reasonable that they would anticipate positive effects—or they would not have volunteered. And because most of the AC soldiers were not truly volunteers, it is not surprising that they rated the various outcomes somewhat less positively.

The significant rank differences on anticipated effects consisted primarily of more positive expectations by junior enlisted personnel. The pattern of RC/AC differences holds for the comparisons of junior enlisted personnel with the other rank groups. Because half the leadership of the battalion was from the AC, this finding does not surprise us. We would expect the RC volunteers, who constituted the bulk of junior enlisted personnel, to have the most positive expectations.

Although there were some group differences in anticipated effects, all soldiers—regardless of rank or component—had highly positive feelings about going to the Sinai.

Organizational commitment. Affective organizational commitment (emotional attachment to the organization) was strong for both

components, and officers were higher on this type of commitment than were NCOs and enlisted personnel. This result is often found in Army organizational research—officers tend to be more positive, more favorable, and/or more optimistic about the Army and their future than are other soldiers. There were no differences in continuance commitment between components or across ranks. Most soldiers seemed to feel that the costs of leaving the organization would not be excessively high.

Career intentions. In spite of the fact that the respondents seemed to believe that leaving the military would not entail excessive costs, sizable proportions of all groups expressed interest in continuing with the Army for a 20-year career or longer. A larger percentage of RC soldiers were undecided about their military career plans than were AC soldiers, a result which may be due to the fact that RC jobs are typically part-time and not full-time. Many of the RC have full-time civilian jobs and thus may be more ambivalent about whether or not they wish to seek a full career as a part-time military member.

Educational aspirations. As a whole, this sample had high educational goals for themselves, with many nondegreed soldiers aspiring to college degrees and those already holding bachelor's degrees aspiring to advanced or professional degrees. Sizable proportions of all soldier groups planned to take educational courses for credit while in the Sinai, although the proportion for the better educated officers was somewhat less than for the other rank groups. Very large proportions of all groups (100% of the officers, for example) planned to travel to other countries during their deployment.

Marital/family status. Generally speaking, the marital and family status of a soldier seemed more related to his or her age than to factors such as component or rank. Higher rank (older) soldiers tended more often to be married and to have children. Those who were married reported high levels of spouse support for the deployment and high levels of satisfaction with the marriage.

SUMMARY AND CONCLUSIONS

What we consider remarkable about these findings is that we found so few real differences among groups. Among reasons for volunteering, differences seemed more related to age or educational level rather than component or rank, although previously unemployed RC personnel did rank economic reasons higher than their employed counterparts.

Junior enlisted personnel tended to be more positive than the other rank groups were about the life effects they expected as a result of the deployment, while officers had more positive attitudes in other cases. On some variables, RC soldiers responded somewhat more positively than AC soldiers. But considering the fact that the majority of the soldiers were not only volunteers but also from the RC, we would have expected to find more and larger differences than we did.

In this chapter, we have reported on the deployees' predeployment status and expectations. In Chapter 12, we shall present findings on these same life course effects based on data collected during the deployment.

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SECTION 3

TRAINING AND PERFORMANCE

The training challenge for the 28th Rotation was to build a unit prepared to perform the Multinational Force and Observers (MFO) mission to the same standards as all prior units. However, because the unit was newly assembled from both Active Component (AC) and Reserve Component soldiers who had not worked together previously, the predeployment training was not like other units. Leaders received nearly 2 months of extra training and preparation time. Section Three focuses on the assessment of this training process by tracking the sequence of tasks, analyzing training content, and measuring the soldiers' job knowledge following training and during the deployment itself.

Chapter 7, by Reynolds and Campbell, opens the section by describing the development of measures of job performance for basic soldier as well as MFO-specific tasks. Based on these measures, job knowledge of Rotation 28 and a previous all-AC rotation was assessed. Wisher and Farr (Chapter 8) then report on the specific tasks trained throughout the predeployment and deployment in the Sinai. Using the measures developed by Reynolds and Campbell, Chapter 8 describes the success of the training process to prepare for the MFO mission. Going into even further detail, Chapter 9 (Salter, Fober, Pleban, and Valentine) presents an assessment of the Infantry Leaders Course portion of the predeployment training.

7

DEVELOPMENT AND ADMINISTRATION OF MEASURES: SINAI PEACEKEEPING PERFORMANCE

Douglas H. Reynolds
Roy C. Campbell

INTRODUCTION

The research described here was undertaken to define the dimensions of peacekeeper performance in the Sinai and to develop measures of these dimensions to be used for two purposes. First, one focus of the U.S. Army Research Institute for the Behavioral and Social Sciences' (ARI) research on the Multinational Force and Observers (MFO) peacekeepers has been on the improvement of the methods used to select soldiers who are to serve in the Sinai. Accordingly, an experimental measure has been developed to assess a number of dimensions purported to be predictive of performance on the mission (Mael, Kilcullen, Olszewski, & White, 1995). In order to validate this new measure, it was necessary to develop measures of peacekeeper performance to use as criteria. Thus, one purpose of the effort described here was the development of measures that could be used as criteria to validate predictors of peacekeeper performance. Second, this effort provided an opportunity to examine the performance requirements for soldiers on the MFO peacekeeping mission and, in particular, to document the performance levels of those who participated in the 28th Rotation. This report describes the steps taken to define and assess soldier performance

in the Sinai and the results of administering a set of MFO-specific performance measures.

Performance Measurement Approach

Recent research on performance modeling has underscored the need to consider the performance domain for a given job as multifaceted (cf. Campbell, McCloy, Oppler, & Sager, 1993). This is especially important when conducting validation research. For example, in the Army's long-term research effort known collectively as Project A/Building the Career Force, a variety of predictor measures was validated against a five-factor model of performance; the results indicated that the predictors differentially related to the various criterion factors (McHenry, Hough, Toquam, Hanson, & Ashworth, 1990). Specifically, cognitive measures tended to better predict "can-do" performance factors (i.e., proficiency-oriented factors involving technical knowledge and skills), while noncognitive measures such as personality and temperament were better predictors of "will-do" performance factors (i.e., motivationally based factors dealing with typical performance).

The importance of noncognitive measures for predicting will-do performance factors is critical in this research because, as Rumsey (1995) has noted, selection into the Sinai mission is secondary to selection into the Army. Since first-stage selection is cognitively loaded, gains in the prediction of performance in the Sinai are likely to be in the noncognitive domain. Additionally, recent research on the correlates of peacekeeper effectiveness indicates that personality factors may be important in this domain (De Jong & Broesder, 1994). The current effort was designed to define and measure multiple aspects (i.e., both can-do and will-do components) of peacekeeper performance in the Sinai.

Note that much of the prior research on soldier performance has examined the content and structure of soldier performance across a range of Army jobs (e.g., Campbell & Zook, 1991); however, there has been less research that examines the nature of soldier performance on a *particular* mission. The U.S. soldiers serving in the MFO provide a unique opportunity to investigate mission-specific requirements in a peacekeeping context. Although the requirements of peacekeeping are certain to vary from mission to mission, investigation of peacekeeper

performance under one set of circumstances may help to understand how it may vary under different circumstances.

Early in the course of this research, it was determined that supervisor rating scales and a job knowledge test would be developed to assess soldier performance in the Sinai. These measures were chosen because they have been found to adequately tap into different aspects of the performance domain, with the job knowledge test best assessing job proficiency, and the rating scales best assessing typical performance. Because these two performance aspects were anticipated to be largely independent, their definition was accomplished via parallel procedures. Thus, development procedures are described separately for the construct-based dimensions (created to support rating scale preparation) and for the knowledge/task dimensions (developed to support job knowledge test preparation).

Although the primary focus of this research is on the enlisted soldier performance, some activities were undertaken to define and assess noncommissioned officer (NCO) performance. The NCO performance measure development and administration activities are described following the sections on enlisted soldier performance.

ENLISTED SOLDIER PERFORMANCE MEASURES: DEVELOPMENT

The enlisted soldier performance constructs and knowledge/task areas were defined, and measures were prepared, according to the following general strategy: (a) prior research on soldier performance and information concerning MFO-specific requirements was reviewed; (b) candidate dimensions were prepared; (c) data were collected to revise, refine, and validate the performance dimensions; (d) performance measures were developed; and (e) the measures were administered to soldiers stationed in the Sinai serving on the MFO mission. These efforts and their results are first described for the construct-based approach and secondly for the knowledge/task-based approach.

Construct-Based Performance Dimensions

As a starting point in the development of MFO-specific performance constructs, a number of earlier efforts to define soldier performance were reviewed for applicability to performance in the Sinai. Of primary relevance for this activity were constructs and general task dimensions that describe basic soldiering performance. General task dimensions were included during this effort to allow for ratings of typical performance to be made on frequently performed activities, as well as on more general performance constructs.

Initial Dimensions of Soldier Performance

Candidate construct dimensions were derived from earlier research efforts. These include dimensions that were developed to cover Army-wide soldier performance, common soldiering tasks, infantryman (11B) performance, and MFO-specific requirements. Candidate dimensions were identified, merged, and selected to form a set of initial dimensions.

Army-wide performance constructs. Constructs defined and assessed during Project A (cf. Campbell & Zook, 1991) were useful as a starting point in this effort because they were designed to be relevant for describing the performance of a first-tour soldier (paygrades E1 - E4) in any Military Occupational Specialty (MOS). These dimensions are summarized in the first column of Figure 7-1. The dimensions include both construct-oriented items such as "Integrity," "Effort," and "Self-Development" as well as a few dealing with general categories of task performance such as "Maintaining Assigned Equipment," and "Maintaining Living and Working Areas." Additionally, one dimension from this source deals with "Technical Knowledge and Skill;" this is due to the need for these dimensions to be applicable across all Army MOSs. Thus, additional dimensions dealing with specific technical requirements had to be identified from other sources. The Army-wide dimensions were informally ranked by importance in the Sinai by 10 soldiers who had been deployed in the Sinai as a part of Rotation 25, and the items in the first column of Figure 7-1 are shown in order of descending importance. Also, based on this subject matter expert (SME) review, two dimensions that were judged to be similar were combined ("Maintaining Assigned Equipment" and "Maintaining Living/Work Areas").

Proposed Dimension Titles Listed by Source			
Army-wide Dimensions[1]	**Common Soldiering Task Dimensions**	**11B MOS-Specific Dimensions**	**MFO-Specific Dimensions**
Following Regulations and Orders	Knowing and Applying Customs/Laws of War		
Self-Control			Nondelinquency
Integrity			
Tech. Knowledge and Skill			
Maintaining Assigned Equipment/Living and Work Areas	Maintaining Weapons	Maintaining Supplies, Equipment, Weapons	
Peer Leadership		Assisting and Leading Others	
Effort			
Military Appearance			
Self-Development			
Physical Fitness			
	Navigation	Navigation	
	Identifying Threats	Guard and Security Duties	Reporting Procedures
	Communicate Over Radio	Operating a Field Phone/Radio	
	Estimate Range	Reconnaissance and Patrol	
	First Aid		Survival and First Aid
			Cultural Awareness
			Tolerance for Boredom
	Engage Targets	Use of Weapons and Equipment	Use of Weapons and Force
			Use of Vehicles
			Behavioral Flexibility

[1]Listed in descending order of importance, as judged by SMEs.

Figure 7-1. Draft MFO Performance Dimensions (Construct-Based).

Common soldiering tasks. During Project A, a set of 13 task dimensions was developed to describe general soldiering activities that applied across MOSs (Campbell & Zook, 1991). These tasks were presented to the same SME panel used to review the Army-wide dimensions. SMEs were asked to comment on the relevance of each task

dimension for performance in the Sinai. Of the 13, 8 were included in the preliminary set of dimensions considered for further investigation. Five dimensions were dropped from consideration either because they did not match MFO requirements (e.g., "Moving under Direct Fire") or because they could sensibly be joined with similar dimensions (e.g., "Navigate Using a Map" was joined with "Navigate in the Field" to form simply "Navigation"). Dimensions were joined because more general task categories would increase the likelihood that a supervisor would have had an opportunity to observe behavior related to the dimension, and because more specific aspects of task performance were expected to be assessed with the job knowledge test. The set of common soldiering tasks included for consideration is shown in the second column of Figure 7-1.

Infantryman (11B) performance dimensions. Because soldiers serving in the MFO line companies are drawn primarily from the infantryman (11B) MOS,[1] Project A MOS-specific dimensions of performance for 11B were also considered (Campbell & Zook, 1991). Of 13 possible dimensions, 7 were included for further consideration based on the same criteria as applied to the common tasks. For example, dimensions such as "Preparing a fighting position" were dropped because they are unlikely or infrequent requirements for the MFO mission. The seven 11B dimensions included in the initial set are shown in the third column of Figure 7-1.

MFO-specific requirements. A fourth set of dimensions was developed to ensure that requirements specific to the MFO mission were considered. These dimensions were developed based on a review of MFO training materials, situation reports, and individual interviews with soldiers who had been MFO-deployed. Although most of the resulting information applied more directly to the development of the job knowledge and task dimensions, eight additional candidate construct dimensions were added for consideration. These dimensions are listed in the right-most column of Figure 7-1.

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1 For example, 88% of the enlisted participants in Rotation 28 were in the Infantryman (11B) or similar (11-series) MOS.

Initial dimensions. A set of initial dimensions was constructed for further development and refinement by cross-referencing the four sets of dimensions aforementioned in a matrix format such as that shown in Figure 7-1. Dimensions were arranged so that similar or redundant dimensions were listed in the same row of the matrix. A set of initial MFO dimensions was then constructed by collapsing the columns of the matrix to create 19 unique performance areas. Draft definitions were prepared for each of these, drawing substantially from the existing definitions of the source dimensions. A list of the initial dimensions is presented in Table 7-1.

Table 7-1
Set of Initial Performance Dimensions

Following Regulations and Orders	Navigation
Self-Control	Guard and Security Duties
Integrity	Operating a Field Phone/Radio
Technical Knowledge and Skill	Reconnaissance and Patrol
Maintaining Assigned Equipment	First Aid
Peer Leadership	Cultural Awareness
Effort	Tolerance for Boredom
Military Appearance	Use of Weapons and Equipment
Self-Development	Behavioral Flexibility
Physical Fitness	

Dimension Development

Once the initial set of dimensions was prepared, several steps were undertaken to further refine and validate the dimensions, with the ultimate purpose of constructing a set of behaviorally anchored rating scales with which supervisors could rate the performance of their soldiers in the Sinai. Briefly, these procedures involved using the initial dimensions to solicit incidents of actual soldier performance, using these incidents to revise the initial dimensions, and retranslating the incidents into the revised categories. This process is consistent with that suggested for the development of behaviorally oriented dimensions of performance

by Smith and Kendall (1963) and Campbell, Dunnette, Arvey, and Hellervick (1973). These steps are described in more detail below.

Critical incident workshops. Four half-day workshops were held during July of 1994 at Fort Bragg, NC. Participants were officers, NCOs, and enlisted soldiers who participated in the 26th MFO Rotation. Each workshop was conducted according to the following procedure: participants were provided with a briefing on the current research effort and a description of the workshop activities; the initial dimensions were described and defined; participants were instructed on how to write critical incidents; and each participant was provided with a page describing each dimension on which they were to write a summary of an incident that occurred in the Sinai. Approximately 2 hours were devoted to writing incidents, during which the workshop facilitators reviewed each participant's incidents to ensure they followed the prescribed format. Finally, a group discussion was held to determine if the participants thought that some dimensions had been excluded. When preparing incidents, participants were instructed to describe the action of an enlisted soldier in the Sinai, the situation that led up to that action, and the results of the action.

Sixty individuals participated in the workshops and wrote a total of 1,056 critical incidents. Participants were asked to try to write at least one incident for every dimension; however, it was anticipated that some dimensions would be harder to write for than others, so no negative feedback was provided when an incident could not be developed for a dimension.

Dimension revision. The critical incidents were used to review and revise the construct dimensions. All performance incidents were edited to conform to the situation-action-result format and were entered into a database. As part of the editing process, duplicate, ambiguous, and incomplete incidents were eliminated, leaving over 500 incident examples.

Next, project researchers content analyzed the performance incidents, using the 19 initial performance categories as a starting point. Specifically, three project researchers independently read the performance incidents and sorted each into one category based on its content. Although the incidents had been written to reflect the 19 initial

categories, this sorting exercise enabled a check on the clarity and appropriateness of the categories based on the content of the performance incidents.

Based on results of the initial sorting of incidents, the initial dimensions were revised. Some of these revisions involved collapsing categories that could not be distinguished based on the content of the performance incidents. For example, incidents reflecting the dimensions of "Tolerance for Boredom" and "Self-Control" could not be consistently differentiated. Additionally, incidents dealing with the application of common technical skills were often of a similar nature (e.g., someone lacking skill in an area makes a costly mistake). Because of the simplicity of these technical skill dimensions, "Navigation," "Communicate over Radio," "Reconnaissance and Patrol," "Using Weapons and Equipment," "First Aid," and "Technical Knowledge and Skill" were all grouped into one dimension labeled "Basic Soldiering Skill."

Some of the initial categories were not supported by the sorting activity. For example, very few incidents were sorted into the "Behavioral Flexibility" dimension. Discussions with participants in the workshops revealed that life in the Sinai is highly regimented, and the opportunity to observe flexibility was minimal. Dimensions for which very few incidents could be written or sorted into were dropped from further consideration.

Finally, some wording changes were made to the titles of the dimensions and their definitions so that they would better reflect the content represented in the performance incidents. A total of 10 dimensions listed in Table 7-2 resulted from the sorting and revision process.

Critical incident retranslation. Four half-day incident retranslation workshops were held with 58 officers, NCOs, and enlisted soldiers who participated in the 26th MFO rotation. The workshops were conducted at Fort Bragg, NC, during October of 1994. Retranslation provides a way of checking on the clarity of individual critical incidents and of the proposed performance dimensions. SMEs were asked to make two judgments about each performance incident: the dimension to which it belongs based on its content and the effectiveness level it reflects.

Table 7-2

Set of Revised Performance Dimensions

A.	Following Regulations and Orders
B.	Self-Control and Personal Discipline
C.	Basic Soldiering Skill
D.	Maintaining Assigned Equipment
E.	Security and Guard Duties
F.	Leadership and Effort
G.	Appearance and Hygiene
H.	Self-Development
I.	Physical Fitness
J.	Cultural Involvement and Awareness

Disagreement among the SMEs on either of these judgments about an incident may be a sign that the incident is unclear. These incidents could then be revised and clarified or eliminated from further scale development. Also, confusion between two or more categories in the sorting of several incidents may reflect weaknesses in the category system.

The participants were provided with definitions of each performance dimension, a list of the edited critical incidents, and a 1-7 effectiveness scale (1 = not effective, 4 = moderately effective, and 7 = extremely effective) to guide their effectiveness ratings of each incident. Each participant was asked to categorize (i.e., "retranslate") and rate approximately 160 incidents. Three separate retranslation booklets were prepared so that all 500+ incidents could be retranslated by a minimum of 20 SMEs each.

The viability of the dimensions was examined through the analysis of the categorization data. These data were analyzed by examining, for each dimension, the total number of incidents with greater than 75% SME agreement on the assignment of the incidents to that dimension. These totals are presented as the diagonal of the matrix shown in Table 7-3. The off-diagonal elements represent the number of items with less than 75% agreement, such that the most frequently assigned dimension is

Table 7-3

Cross-Tabulation of Most Frequent Assignment (columns) by Second Most Frequent Assignment (rows) for Items With 75% or Less Agreement

Dim	A	B	C	D	E	F	G	H	I	J
A	14*	5	3	4	3	9	.	.	.	2
B	15	39*	7	2	5	9	.	5	5	6
C	1	3	40*	6	5	13	.	13	.	.
D	2	2	6	15*	.	7	.	.	.	.
E	2	6	1	2	29*	3	.	.	.	1
F	5	5	9	2	.	48*	.	5	2	1
G	3	.	.	.	.	4	18*	.	1	.
H	.	4	10	1	2	3	.	11*	2	1
I	.	1	.	.	.	2	1	.	18*	.
J	1	6	.	.	1	2	.	.	.	20*

Note. Items on the diagonal (indicated by "*") represent the number of items with greater than 75% agreement on the dimension. See Table 7-2 for dimension titles.

represented by the columns of the matrix, and the second most frequently assigned dimension is represented by the rows. For example, for dimension A (Following Regulations and Orders), a total of 14 incidents were categorized in "A" by 75% or more of the SMEs rating the incident, while 15 incidents were categorized in "A" by fewer than 75% of SMEs such that the most often chosen category was "A," but the second most often chosen category was "B" (Self-Control and Personal Discipline). This analysis helps identify dimensions that may be redundant or significantly overlap.

The results of this analysis indicated that each of the 10 revised dimensions were supported with a sufficient number of incidents to enable the development of behaviorally based rating scales. The most frequently overlapping dimensions were "Following Regulations and Orders" (A) with "Self-Control and Personal Discipline" (B), and "Self-Development" (H) with "Basic Soldiering Skills" (C). Examination of the incidents that were cross-classified in this manner suggests that this pattern was primarily due to incidents in which soldiers failed to follow orders (for the former case) and where soldiers lacked critical skills because they failed to develop them (for the latter case). Because all of

the dimensions were supported with high levels of agreement on several incidents, all 10 dimensions proceeded into the scale-development phase.

Rating Scale Development

MFO-specific rating scales were developed by first identifying critical incidents that were unambiguously retranslated into each of the 10 dimensions. Generally, incidents were retained for use in scale development if greater than 60% of the SMEs sorting an incident placed it into a single dimension, and if the effectiveness ratings on the incident varied by less than 1.5 standard deviations. Incidents that met these criteria were used to develop behavioral anchors for each rating category. Specifically, the performance incidents were divided into three groups of effectiveness based on their mean effectiveness rating: low (1 - 2.49), average (2.50 - 5.49), and high (5.50 - 7.00). Behavioral summary statements were then written to capture the content of the specific examples at each of the three effectiveness levels (low, average, and high) for each dimension. Finally, one or two incidents that passed the inclusion criteria were selected for each effectiveness level within each dimension. These incidents were used as performance examples on the rating scales.

The MFO-specific enlisted soldier rating scales are available in Reynolds and Campbell (in preparation). Note that each scale has the following components: (a) a dimension title, (b) a dimension definition, (c) a seven-point effectiveness scale, (d) three behavior summary statements that reflect the general content of the critical incidents that were retranslated into the categories, and (e) performance examples within each of the three general effectiveness levels.

Rating Scale Administration

During May 1995, the rating scales were administered to supervisors of a mix of Active Component (AC), Army National Guard (ARNG), and Reserve Component (RC) soldiers stationed in the Sinai as part of Rotation 28. Only enlisted soldiers were rated with the MFO performance scales. The scales were administered in small group settings (6-15 participants each) according to the following procedures: participants were provided with rating materials and a card listing the

subordinates they would be rating; a brief introduction was given regarding the research effort and the purpose for the ratings; raters were trained on common rating errors and how to avoid making them; and raters completed the rating scales so that each ratee assigned to them was rated on each of the 10 performance dimensions. Two points were strongly emphasized during the rater training session: (1) the ratings were for research purposes only and would never be disclosed to the ratee, and (2) the usefulness of the ratings would depend upon their accuracy. In total, 57 supervisors completed ratings for 228 ratees.

KNOWLEDGE AND TASK DIMENSIONS

Similar to the construct-based dimensions, the knowledge and task dimensions developed to form the basis for the job knowledge test were created by reviewing prior dimensions for similar performance domains and submitting these to SME review. Unlike the construct dimensions, however, a substantial body of work had been done previously to define task dimensions for the MFO mission. The major activity to be accomplished was identification and selection of the specific tasks to be tested. A goal of approximately 25 tasks, covering the breadth of the performance domain, was set for the construction of the test. The procedures for identifying and selecting these tasks are described in more detail below.

Task selection and test development were conducted under several constraints. First, the tasks were required to have some overlap with existing job knowledge tests for infantryman to allow for direct comparisons between MFO and other active duty samples. Second, multiple forms of the test were to be developed to be used in conjunction with another project dealing with training evaluation. Third, workshop and pilot test participants who had MFO experience were available only during a short window of time, requiring that all development activities be accomplished within a 10-week period.

Dimension and Task Identification

Material review. Two sources describing the task requirements of MFO soldiers were provided to project researchers by MFO personnel.

These sources included the *MFO Infantry Battalion Pre-Deployment Training Package* and the *Soldier's Manual (11B)*; these sources were assumed to provide the universe of activities from which individual tasks to be tested could be derived.

The first source, the *MFO Infantry Battalion Pre-Deployment Training Package*, comprises mostly MFO-specific requirements. The publication is organized into 12 precis, which roughly correspond to topic or content areas. The title of each precis is shown in the upper portion of Table 7- 4. When explicit task statements for a precis were not available, task statements were developed from the content of each precis. It should be noted that the contents of the first three precis are not traditional military tasks. They are knowledge- and information-based issues that are not founded on a behavioral requirement. This does not lessen their potential importance.

The second source of tasks was an extract of the *Soldier's Manual 11B* (Skill Level Tasks 1-4). ARI researchers selected tasks from the Soldier's Manual (SM) based on their MFO relevance prior to the start of the current effort. Based on tasks from this source, task groupings were developed and named to reflect major content areas. Tasks were then assigned to these categories to form task clusters. These SM task clusters are listed in the lower portion of Table 7-4. Note that several redundant categories appear between the sources. Similar dimensions were maintained across the two category systems because, although MFO-based categories were highly specific to the mission, the SM categories provided more exact task definitions and substeps, which are useful for test development. Redundancies between tasks determined to be critical were resolved by combining task statements during SME review.

Between the two sources described above, 95 tasks distributed over 18 task categories were identified. These tasks provided the basis for an MFO SME review of the categories and tasks.

SME workshop. During July 1994, a workshop was conducted at Fort Bragg with 20 NCOs who had participated in Rotation 26 in the Sinai. Participants were given a brief overview of the research and then were presented with a list of the 95 tasks within their respective categories. Each participant was asked to select the 30 most critical tasks

Table 7-4
Initial Set of 18 Task Categories

MFO Precis:

MFO1.	MFO Organization
MFO2.	General Information on the Sinai
MFO3.	Field Sites and Patrols
MFO4.	Observation
MFO5.	Recognition
MFO6.	Reporting Procedures
MFO7.	Communications
MFO8.	Threat Assessment and Defensive Measures
MFO9.	Use of Firearms and Force
MFO10.	Desert Operations: Survival and First Aid
MFO11.	Vehicle Drills
MFO12.	Identification of Mines and Unexploded Ordnance

Soldier's Manual Task Categories:

SM13.	Map Reading and Land Navigation
SM14.	First Aid
SM15.	Small Arms and Weapons
SM16.	Individual Field and Patrolling Techniques
SM17.	Surveillance and Reporting
SM18.	Chemical Defense

for performance in the Sinai from the list of 95. Following the rating exercise, SMEs discussed the category scheme, the assignment of tasks to categories, the rationale for their rankings, and the grouping of similar tasks and categories. Based on this discussion, redundancies between tasks were eliminated across the category systems.

The results were totaled by tabulating the number of SMEs that identified a task as being most critical. A criterion of 50% of the SMEs judging a task as critical was used to select tasks for testing. A total of 24 unique tasks met this criterion, and all of the categories except two, "Chemical Defense" and "Small Arms and Weapons," were represented with at least one critical task. After review, it was determined that two

tasks ("Determine magnetic azimuth" and "Recognize aircraft components (WEFT) characteristics," both rated as critical by 10 SMEs) would be dropped in favor of tasks dealing with the maintenance and operation of an M16A2 rifle (viewed as critical by 9 and 8 SMEs, respectively), thereby enabling comparisons with two task tests administered in Project A. The addition of these tasks allowed for the coverage of the "Small Arms and Weapons" category. "Chemical Defense" was not assessed because of the very low criticality judgments for this task area. A summary of the selected tasks, listed by source, and number of SMEs judging the task to be critical appear in Table 7-5.

Development of Task Tests

Multiple-choice test items were prepared for all tasks to be tested, so that each task had its own set of items. In this sense, the job knowledge test developed is a collection of 24 small task tests. All item development was doctrine based; that is, it relied upon an accepted, published MFO or U.S. Army source. A practical constraint of a 2-hour maximum administration time placed a limit on the number of items that could be included for each task. The final test included 2 versions of 91 items each; the number of items per task ranged from 3 to 6.

All test items were constructed so that one right answer is justifiable based on current doctrine, and three alternatives were provided that each met three criteria: (1) they are actions or choices that are often performed in conjunction with the situation or requirement described in the item stem; (2) they are actions or choices that are doable, logical, real, and consistent with the stem; and (3) they are incorrect.

The alternate form of the test was created by changing the situation presented in the items without altering the basic process involved in answering the item. For example, one item presents a map and requires the examinee to determine grid coordinates. The location to be determined is altered between the two forms. Another strategy involved splitting the steps involved in a task across the two versions of the test.

Pretest. In August 1994, both versions of the job knowledge test were administered to soldiers who had been deployed in the Sinai as part of Rotation 26. In all, 62 soldiers took version A and 64 took version B; each version was administered as two counterbalanced forms. The item

Table 7-5

Tasks Selected for Testing, Shown by Source and Number of SME's Judging Item as Critical

Source	# of SMEs	Task
MFO1	17	Describe the zonal structure of the Sinai
MFO2	12	Identify do's and don'ts of contacts with Egyptians
MFO3	11	Describe the mission tasks for the four levels of organizational field sites
MFO4/SM17	18	Estimate range
MFO4/SM17	14	Perform search and scan procedures
MFO5	18	Identify specific aircraft by type and origin
MFO5	14	Identify Arab Republic of Egypt (ARE) forces
MFO5	10	*Recognize aircraft components (WEFT) characteristics
MFO6	16	Prepare incident reports
MFO6	12	Prepare routine/recurring reports
MFO7/SM17	17	Send a radio message
MFO8	18	React to threatening, suspicious, or unusual incidents and adhere to defensive procedures
MFO9	19	Follow rules and principles for use of force and employment of firearms
MFO10/SM16	15	Perform operational survival techniques
MFO11	10	Take action on incidents involving vehicles
MFO12	16	Recognize explosive hazards of the Sinai
SM13	10	*Determine magnetic azimuth
SM13	10	Determine grid coordinates
SM14	19	Give first aid for heat injuries
SM14	14	Perform mouth-to-mouth resuscitation
SM16	12	Guide a helicopter to a landing point
SM16	10	Perform self-extraction from a minefield
SM17	18	Collect and report information
SM17	13	Request a medical evacuation

Note. Items with an asterisk were replaced with tasks dealing with maintenance and operation of an M16A2 rifle, to enable comparisons with Project A Job Knowledge Tests.

level data resulting from this administration was used to construct the final test forms (two alternate versions and one combined version).

Development of final test forms. Data from the pretest were used to eliminate items with very high or very low pass rates and to identify items that may have been incorrectly keyed or have more than one correct answer. Problem items were corrected or revised so that each alternate version of the test remained at 91 items. These alternate versions were then provided to researchers conducting an evaluation of MFO training.

The final step in the development of the test was to combine the two versions into one test to be used as a criterion measure in the validation study. This was accomplished by choosing the best items from each task test to include on the final form. "Best" in this circumstance was defined as having the most power to discriminate between individuals (i.e., p values close to .50 from the pretest, high item-total correlations). For tasks that were tested by splitting the steps between versions, the final test reassembled these steps; thus, the final test was longer than each of the two alternate versions (99 items). The final version of the test was also reverse-ordered to create two forms of the test.

Administration of the Job Knowledge Test

The final 99-item version of the Job Knowledge Test was administered in the Sinai during May 1995. A total of 308 soldiers serving on Rotation 28 were given the test according to the following procedures: large groups of soldiers (20-50 soldiers per group) presented themselves for testing at a gymnasium set up for collecting data using written measures; soldiers were given a short briefing on the purpose of the data collection and instructions for completing each of several data collection instruments; soldiers completed the instruments at their own pace until all forms were finished; completed forms were checked by ARI personnel; and examinees were dismissed. The Job Knowledge Test was typically completed last, after a battery of other measures developed by ARI. Examinee responses to the Job Knowledge Test were recorded on a machine-scannable form to facilitate data entry.

ENLISTED PERFORMANCE MEASURES: RESULTS

Data resulting from both the rating scales and the Job Knowledge Test were analyzed according to the following strategy: first, data were screened for aberrant responses; second, descriptive statistics were computed on all items and scales; third, subscores were developed, either through factor analysis or rational grouping procedures; reliabilities of the subscores were computed; and intercorrelations between the subscores were examined. Each of these steps is described below.

Enlisted Rating Scale Results

Descriptive statistics. Review of scale-level frequencies indicated that 3 cases out of 228 were missing data on all substantive rating scales. These cases were dropped from subsequent analyses, leaving a sample of 225 for most analyses. Scale means, standard deviations, and response ranges are shown in Table 7-6. Note that raters tended to use the full range of the seven-point scales, the means tend to be near the midpoint of the scale, and the scale standard deviations are roughly equivalent. These characteristics suggest that the data tend to be free of the strong leniency effects often seen in operational ratings.

Rating scale factor analysis. Ratings for 221 ratees with complete data on all rating scales were factor analyzed. This analysis was undertaken as a preliminary step in the development of criterion scores to be used for validation analyses. A principal-axis factor analysis with a varimax rotation was conducted to examine the constructs underlying the rating scale dimensions. A three-factor solution, accounting for 56% of the total variance in the scales, was found to be the most meaningful. These three factors, the scales loading the highest on each, and the factor loadings for these scales are shown in Table7-7. The three factors were nearly identical to prior research on the structure of Army-wide rating categories (Campbell, 1986), and thus these factors were given labels consistent with those used in the past: "Job-Relevant Skills and Motivation" (Factor 1), "Personal Discipline" (Factor 2), and "Physical Fitness and Military Bearing" (Factor 3).

Unit-weighted factor scores were computed for the three factors resulting from the factor analysis, such that each factor score represents the mean of the raw-score scales that comprise the factor. Factor score

Table 7-6

Descriptive Statistics for Enlisted Rating Scales

Scale	Mean	SD	Range
Maintaining Equipment	4.55	1.25	1 - 7
Self-Control and Personal Discipline	4.23	1.58	1 - 7
Basic Soldiering Skill	4.47	1.27	1 - 7
Following Regulations and Orders	4.37	1.44	1 - 7
Appearance and Hygiene	4.68	1.30	1 - 7
Self-development	4.26	1.42	1 - 7
Security and Guard Duties	4.66	1.32	1 - 7
Cultural Involvement and Awareness	4.36	1.24	1 - 7
Leadership and Effort	3.92	1.52	1 - 7
Physical Fitness	4.64	1.56	1 - 7

Note. $N = 225$.

means, standard deviations, and internal-consistency reliabilities (coefficient alpha) are reported in Table 7-8. Additionally, descriptive statistics for the mean score across all 10 scales are shown in Table 7-8.

Job Knowledge Test Results

Descriptive statistics. Preliminary review of the Job Knowledge Test data indicated that a few respondents may have responded randomly. Evidence of this included respondents finishing the 99-item test in less than 10 minutes and tests with substantial numbers of repeat response values. Because of this concern, several error measures were developed. These included a count of missing values, a count of out-of-range values, counts for each of the four possible response categories, and the last item reached by the respondent. Aberrant cases were eliminated from further analysis by identifying cases with outlying scores on any of these error

Table 7-7
Rating Scale Factor Loadings

Scale Title	Factor 1	Factor 2	Factor 3
H. Self-Development	.69	.36	.22
E. Security and Guard Duties	.65	.33	.16
C. Basic Soldiering Skill	.58	.19	.32
F. Leadership and Effort	.56	.52	.29
D. Maintaining Assigned Equipment	.49	.35	.41
J. Cultural Involvement and Awareness	.42	.15	.13
B. Self-Control and Personal Discipline	.32	.74	.19
A. Following Regulations and Orders	.36	.68	.32
G. Appearance and Hygiene	.19	.19	.83
I. Physical Fitness	.31	.24	.44

Note. Loadings shown in bold indicate the assignment of scales to factors. Factor 1 = Job-Relevant Skills and Motivation, Factor 2 = Personal Discipline, Factor 3 = Physical Fitness and Military Bearing. $N = 221$.

measures. Specifically, cases with more than 19 missing values, more than 10 out-of-range values, more than 50 responses in any one response category, or where the respondent did not reach at least the 65th item were dropped from further analysis. Fourteen of the 308 Job Knowledge Test examinees did not meet these criteria and were dropped from the sample.

Table 7-8
Descriptive Statistics and Reliabilities for Enlisted Ratings Factors

Scale	Mean	SD	r_{xx}	Range
Job-Relevant Skill and Motivation	4.37	1.01	.85	1.50 - 6.83
Personal Discipline	4.32	1.39	.81	1.00 - 7.00
Physical Fitness and Military Bearing	4.66	1.23	.64	1.00 - 7.00
Mean of Supervisor Ratings	4.42	1.00	.89	1.90 - 6.90

Note. $N = 221$, Reliability reported is coefficient alpha.

Of the 294 remaining Job Knowledge Test examinees, 187 were junior enlisted soldiers, 104 were NCOs, and 3 could not be identified. In the analyses that follow, all test-oriented analyses (e.g., reliabilities, subscore development) used the entire sample of 294. All other descriptive statistics and correlational analyses used only the relevant sample (i.e., junior enlisted soldiers for this section).

The Job Knowledge Test was designed to yield 24 individual task-test scores. These scores were computed as the percentage of items pertaining to each task that were answered correctly. Descriptive statistics and the reliability for each task test are shown in Table 7-9.

The 24 task tests were rationally grouped by general content area to yield two additional subscores. Specifically, general soldiering tasks were grouped apart from tasks derived from MFO-specific responsibilities. The categorization of the tasks was performed by project researchers involved with the development of the knowledge test. Task labels shown in Table 7-9 are denoted to reflect the general dimension into which each was placed. A rationally derived grouping of tasks was preferred over more analytic approaches for two reasons: the MFO and general soldiering dimensions represent an important and meaningful distinction in the research, and knowledge tests used in prior research on soldiering used a similar distinction. The tests developed under Project A resulted in a common soldiering and an MOS-specific component (Campbell & Zook, 1991). Descriptive statistics and reliabilities for these two subtest components, and for the entire test, are shown at the bottom of Table 7-9. As with the task tests, subtest and total test scores were computed as the percentage of items answered correctly.

Summary of Enlisted Soldier Criterion Scores

Rating-based scores. As a result of these analyses, three sets of rating-based scores are currently available for conducting validation analyses. The total ratings score can be used as a general summary of typical performance, factor scores can be used to validate the predictor tests at the construct level, and individual scale scores can be also used to address questions about more specific aspects of performance. For example, the scales "Guard and Security Duties" and "Cultural Awareness and Involvement" represent areas of performance that may be

Table 7-9
Descriptive Statistics and Reliabilities for Job Knowledge Task Tests

Task	# of Items	Mean	SD	r_{xx}
Describe the zonal structure of the Sinai (M)	4	64	30	.53
Identify do's and don'ts of contacts with Egyptians (M)	7	59	27	.64
Describe the mission tasks for four levels of org. field sites (M)	5	64	35	.78
Estimate range (G)	3	33	26	.12
Perform search and scan procedures (G)	4	37	25	.11
Identify specific aircraft by type and origin (M)	8	62	28	.75
Identify Arab Republic of Egypt (ARE) forces (M)	5	64	29	.60
Maintain an M16A2 Rifle (G)	3	61	34	.54
Prepare incident reports (M)	3	48	30	.21
Prepare routine/recurring reports (M)	5	57	29	.49
Send a radio message (G)	3	63	36	.58
React to threatening, suspicious, or unusual incidents and adhere to defensive procedures (M)	4	72	31	.65
Follow rules for use of force and employment of firearms (M)	3	75	34	.75
Perform operational survival techniques (M)	6	50	25	.43
Take action on incidents involving vehicles (M)	3	42	34	.47
Recognize explosive hazards of the Sinai (M)	4	33	25	.16
Engage targets with M16A2 rifle (G)	5	30	22	.12
Determine grid coordinates (G)	4	60	36	.76
Give first aid for heat injuries (G)	3	53	32	.40
Perform mouth-to-mouth resuscitation (G)	3	55	35	.51
Guide a helicopter to a landing point (G)	5	43	24	.30
Perform self-extraction from a minefield (G)	3	42	29	.19
Collect and report information (G)	3	56	31	.21
Request a medical evacuation (G)	3	51	35	.46
General Soldiering Knowledge	42	49	17	.83
MFO-Specific Soldiering Knowledge	57	58	19	.91
Total test score	99	54	17	.94[a]

Note. [a]Total test score reliability computed as a Spearman-Brown split-half, all others are coefficient alpha. *N* for reliabilities = 294; all other statistics are based on *N* = 187. "G" indicates task contributes to the General Soldiering Knowledge subscore. "M" indicates contribution to the MFO Soldiering Knowledge subscore.

more unique to the MFO mission than other scales. Relationships between these scales and the predictor measures may be of particular interest.

Job Knowledge Test-based scores. Similar to the ratings, knowledge test performance may be expressed in three ways: as a total test score, as a subscore on either the MFO-specific or general soldiering dimensions, or as 24 individual task-test scores. Although the two subscores will probably be the most useful for validation purposes, relationships between predictor scores and individual task tests may also be of interest. Note, however, that many of the individual task tests have reliabilities that are too low to be useful criterion measures by themselves.

Relationships between criterion scores. Table 7- 10 shows the correlations among the summary scores for the ratings and the Job Knowledge Test. The intercorrelations between the ratings factors and the test factors offer a meaningful pattern. Note that ratings on the Technical Skill and Motivation factor show significant positive correlations with the Job Knowledge Test factors, and most strongly with the General Soldiering subscore. The other ratings factors show lower or no relationship with the knowledge test. This pattern makes sense in that soldiers lacking critical job knowledge (as shown by the test) would be less likely to receive high ratings on the technical scales, whereas these same soldiers' disciplinary and fitness ratings should not be related to their level of job knowledge. Note also that soldiers' General Soldiering knowledge scores tend to be highly related to their MFO-specific knowledge scores ($r = .78$, uncorrected).

NCO PERFORMANCE MEASURES: DEVELOPMENT

Although NCO performance was not the central focus of this effort, during the course of the work a need developed to gain an understanding of the performance dimensions that may be relevant for NCOs. This activity was accomplished primarily by drawing upon existing efforts to define NCO performance and by evaluating the extent to which these dimensions may apply in the Sinai. As such, this section focuses on the results of several job analysis survey administrations with varying samples. Performance dimensions and rating measures were then based on the results of the job analysis effort. Note that NCO performance was

Table 7-10
Intercorrelations Among Rating Factors and Test Subscores

	Technical Skill & Motivation	Personal Discipline	PFMB	Avg. Ratings	General Soldiering	MFO Soldiering
Personal Discipline	.71**					
Physical Fitness & Bearing	.58**	.50**				
Average Ratings	.95**	.84**	.74**			
General Soldering	.24** (.29)	.09 (.11)	.03 (.04)	.18* (.21)		
MFO Soldiering	.18 * (.20)	.07 (.08)	-.06 (-.08)	.12 (.13)	.78**	
JK Total Score	.22** (.25)	.08 (.09)	-.014 (-.01)	.16* (.18)	.92**	.96**

*$p < .05$. **$p < .01$.
Note. Sample size for correlations among ratings = 225, among test scores = 187, and between ratings factors and test scores = 184. Correlations between ratings and test scores appearing in parentheses are adjusted for attenuation in both measures being correlated.

defined only with respect to performance constructs; task and knowledge dimensions unique to NCOs were not developed as a part of this research.

MFO NCO Performance Construct Investigation

Candidate dimensions were obtained from a current ARI-sponsored project known as ECQUIP (Expanding the Concept of Quality in Personnel) that involves development and validation of predictors of NCO performance (Peterson, Smith, Hoffman, Pulakos, Reynolds, Potts, Oppler, & Whetzel, 1993). Much like the enlisted construct-based dimensions described beforehand, the NCO dimensions were developed through a process of literature review, initial dimension development, critical incident collection and retranslation, and dimension revision. However, these dimensions were created to apply Army-wide and were developed entirely using NCOs currently stationed in the United States.

The NCO Job Activities Questionnaire (JAQ) was developed to assess the relevance of these dimensions for the MFO mission. The

The NCO Job Activities Questionnaire (JAQ) was developed to assess the relevance of these dimensions for the MFO mission. The instrument defined each of the performance dimensions and required the respondent to provide a rating of the importance of the dimension for overall performance in the Sinai (on a 0 - 5-point scale) and the amount of time spent on activities involving the dimension (also on a 0 - 5-point scale) while in the Sinai.

The JAQ was administered to MFO-deployed NCOs three times during the course of this research: first, to a sample of NCOs who served on Rotation 26 (JAQ Sample 1); second, to a sample of MFO-deployed Rotation 28 NCOs early in their tour in the Sinai (JAQ Sample 2); and third, to another sample of Rotation 28 NCO's, later in their tour (JAQ Sample 3). Data collected with the JAQ were used to inform the development of a set of NCO-specific rating scales to be used in the Sinai. The development of these scales is described in the final report by Reynolds and Campbell (in preparation).

JAQ Sample 1 administration. The survey was first administered to a sample of former (Rotation 26) MFO NCOs to begin to assess the relevance of the dimensions for the MFO mission. A total of 20 NCOs who had served in the Sinai as part of a previous rotation completed the questionnaire during SME workshops conducted to refine the MFO job knowledge test (July 1994). NCO ratings of importance and time spent for each of 13 dimensions on the questionnaire were summed together to form a "criticality" score. Table 7-11 shows the results of this analysis, ranked by criticality score, in the column labeled "MFO."

To provide a comparison point, data collected as a part of the original dimension development activities (as part of the ECQUIP project) from 25 non-MFO NCOs serving in the continental United States are presented with the MFO results. To make the most appropriate comparison, only data collected from 11B NCOs were included from the development sample. A summary of these data appears in the column labeled "non-MFO" in Table 7-11. (A full report on the data collection strategy and the development of the Army-wide NCO dimensions can be found in Peterson et al. (1993).

When MFO NCOs are compared to NCOs whose reference point was their current assignment at a domestic location, most performance

Table 7-11
Criticality of 13 NCO Dimensions for Performance in the Sinai/United States

	Mean Criticality Score		Standard Deviation		
Dimension	MFO	Non-MFO	MFO	Non-MFO	*p* value
Relating and Cooperating with Others	8.25	8.00	1.21	1.08	n.s.
Motivating Others	8.05	7.96	1.36	1.34	n.s.
Following Regulations, Policies, and Procedures	7.95	7.00	2.28	1.58	n.s.
Demonstrating Effort and Motivation	7.85	8.04	2.21	1.34	n.s.
Communicating Orally	7.75	7.72	1.59	1.67	n.s.
Demonstrating Integrity and Discipline	7.55	7.96	2.19	1.26	n.s.
Directing, Monitoring, and Supervising Work	7.00	7.64	1.41	1.38	n.s.
Representing the Army	6.65	6.76	2.62	2.33	n.s.
Demonstrating Responsiveness	6.60	*	2.14	*	
Organizing, Coordinating, and Executing Work	5.75	7.24	1.45	1.92	<.01
Planning and Providing for Training	5.55	7.60	2.42	1.56	<.01
Demonstrating Technical Knowledge and Skill	5.50	7.16	2.44	1.82	<.02
Writing	4.95	6.16	2.74	1.65	<.10

Note. $N = 20$ for all items for Sinai NCOs on Rotation 26, $N = 25$ for all domestic NCOs; criticality score is based on a 11-point scale, created by summing time spent ratings (0-5 scale) and importance ratings (0-5 scale) for each dimension. Cells denoted with an asterisk represent dimensions that were not assessed during the domestic data collection.

dimensions do not differ if rated criticality. However, a few dimensions were viewed as less critical by MFO NCOs: "Organizing, Coordinating, and Executing Work;" "Planning and Providing for Training;" "Demonstrating Technical Knowledge and Skill;" and "Writing" were all rated as significantly less critical by NCOs who participated in the MFO mission compared to their domestic counterparts. This finding is likely to be unique to MFO peacekeeping because the requirements of the mission are well-established, uncomplicated, and routine.

JAQ Sample 2. Additional data were collected to determine the extent to which these NCO dimensions are perceived as important by NCOs participating in Rotation 28, and the extent to which some of the first term (E1-E4) Sinai performance dimensions may apply to MFO NCOs. MFO NCOs participating in Rotation 28 completed the same performance dimension rating questionnaire as described previously in February 1995 in the Sinai. Additional items were also included that asked NCOs to rate the importance and time spent on the 10 enlisted dimensions of MFO performance.

A total of 31 NCOs who were serving in the Sinai as part of Rotation 28 completed the questionnaires. Of these, 8 were sergeants (SGT), 22 were staff sergeants (SSG), and 1 was a sergeant first class (SFC). NCO ratings of importance and time spent for each of the 13 NCO dimensions on the questionnaire were summed together to form a "criticality" score. Table 7-12 shows the results of this analysis, ranked by criticality score, in the column labeled "R 28 Time 1"; data from Rotation 26 (R 26) are also shown in Table 7-12 to facilitate comparison.

JAQ Sample 3. Only data collected from JAQ Samples 1 and 2 were used to inform the development of the NCO rating scales; however, an additional sample of JAQ data was collected at the time of the administration of the NCO rating scales to verify the importance of the assessed dimensions and to allow for comparisons with the earlier JAQ samples.

A total of 71 individuals serving as part of Rotation 28 completed the JAQ in May 1995 in the Sinai. Of these, 39 were SGT, 20 were SSG, and 7 were SFC; additionally, 7 were promotable corporals with supervisory responsibilities. Dimension means from JAQ Sample 3 are presented in the third column of Table 7-12.

The results presented in Table 7-12 show a similar pattern to those presented in Table 7-11. Specifically, Rotation 26 NCOs tend to view a few dimensions as less critical than their counterparts in Rotation 28. Additionally, when Rotation 28 personnel are compared to their non-MFO counterparts (see Table 7-11), none of the dimension criticality scores significantly differ.

There are several factors that may underlie this pattern of differences. First, Rotation 28 personnel (which include ARNG and RC

Table 7-12
Criticality of 13 NCO Dimensions for Performance in the Sinai as Rated by NCOs on Two Rotations

	Mean Criticality Score			Standard Deviation		
Dimension	R 26	R 28 Time 1	R 28 Time 2	R 26	R 28 Time 1	R 28 Time 2
Relating and Cooperating with Others	8.25	8.16	7.49	1.21	1.46	1.75
Motivating Others	8.05	7.23	7.52	1.36	2.31	1.81
Following Regulations, Policies, and Procedures	7.95	7.32	7.70	2.28	1.38	1.66
Demonstrating Effort and Motivation	7.85	7.41	7.55	2.21	1.12	1.52
Communicating Orally	7.75	8.06	7.92	1.59	1.15	1.31
Demonstrating Integrity and Discipline	7.55	7.90	8.01	2.19	1.45	1.53
Directing, Monitoring, and Supervising Work	7.00	7.58	7.65	1.41	2.08	1.37
Representing the Army	6.65	6.33	6.62	2.62	2.62	2.56
Demonstrating Responsiveness	6.60	6.87	6.93	2.14	1.78	1.45
Organizing, Coordinating, and Executing Work	5.75[a]	7.68	7.03	1.45	1.11	1.47
Planning and Providing for Training	5.55	6.61	6.53	2.42	2.14	2.21
Demonstrating Technical Knowledge and Skill	5.50[b]	6.84	6.24	2.44	1.79	2.12
Writing	4.95[a]	6.68	6.49	2.74	1.51	1.70

Note. [a] Rotation 26 mean differs from both Rotation 28 means ($p < .01$).
[b] Rotation 26 mean differs from Time 1 Rotation 28 mean only ($p < .03$).
$N = 20$ for all items for Rotation 26 NCOs, $N = 31$ for all Rotation 28, Time 1 NCOs, and $N = 71$ for Rotation 28, Time 2 NCOs. Criticality score is based on an 11-point scale, created by summing time spent ratings (0-5 scale) and importance ratings (0-5 scale) for each dimension.

personnel) may view their responsibilities in the Sinai as more important than Rotation 26 personnel because many of them reactivated specifically for the mission. Active duty personnel may view the MFO mission as light duty compared to their normal responsibilities (note the lower rating for this group on the "Demonstrating Technical Knowledge and Skill" dimension). Second, the location of the administration may have led NCOs actually in the Sinai (Rotation 28) to rate some dimensions higher than did Rotation 26 NCOs who had returned to Fort Bragg by the time of the data collection. Third, the time of the administration may have made a difference. Rotation 28 NCOs who completed the questionnaires just after their arrival in the Sinai (Time 1) tended to give the highest ratings; Rotation 26 NCOs, who completed the instrument just after the completion of their mission, tended to give the lowest. Rotation 28 Time 2 NCOs tended to give ratings that fell between the other samples, although none of the comparisons between the Time 1 and Time 2 samples were statistically significant.

The Rotation 28 samples (Time 1 and 2) also rated the importance of the enlisted dimensions for performance in the Sinai. The results of the ratings for these samples are shown in Table 7-13. Note that all of the dimensions are rated fairly high and that no significant differences were found between the samples.

Active Component/Reserve Component comparisons. Because Rotation 28 NCOs were drawn from both the AC and the RC, comparisons could be drawn between these groups on the perceived importance of the performance dimensions. The Rotation 28 Time 1 and Time 2 samples were combined to improve the sample size for these comparisons and because no differences were found between the two samples.

AC and RC NCOs differed significantly in their criticality ratings for only two dimensions: (1) AC NCOs viewed "Cultural Involvement and Awareness" as less critical than RC NCOs (mean AC = 5.08, mean RC = 6.95; $t = 4.33$, $p < .001$), and (2) AC NCOs viewed "Writing" as more critical than RC NCOs (mean AC = 6.86, mean RC = 6.05; $t = 2.53$, $p < .02$).

Table 7-13

Criticality of 10 Sinai-Specific Enlisted Dimensions for NCO Performance in the Sinai as Rated by NCOs on Rotation 28

	Mean Criticality Score		Standard Deviation	
Dimension	R28 Time 1	R28 Time 2	R28 Time 1	R28 Time 2
Leadership and Effort	8.33	*	1.27	1.27
Self-Control and Personal Discipline	8.07	*	1.39	1.39
Appearance and Hygiene	7.90	7.67	1.68	1.68
Physical Fitness	7.84	7.83	1.34	1.34
Maintaining Assigned Equipment	7.70	7.73	1.91	1.91
Following Regulations and Orders	7.40	*	1.28	1.28
Self-Development	7.35	7.10	1.66	1.66
Guard and Security Duties	7.23	8.03	2.80	2.80
Basic Soldiering Skill	6.80	7.11	2.77	2.77
Cultural Involvement and Awareness	6.32	5.63	1.87	1.87

Note. $N = 31$ for all Time 1 NCOs. $N = 71$ for Time 2 NCOs; asterisk (*) indicates dimensions were not assessed. Criticality score is based on an 11-point scale, created by summing time spent ratings (0-5 scale) and importance ratings (0-5 scale) for each dimension. No mean comparisons reached statistical significance.

MFO NCO Rating Scale Development

Results from the administration of the JAQ were used to select dimensions for rating scale development in the following manner: Data collected from Rotation 26 personnel (Sample 1) were used to select highly rated dimensions; data collected from Rotation 28, Time 1 personnel (Sample 2) were used to inform judgments regarding the use of some of the enlisted scales for evaluating NCO performance, and to verify the importance of the ECQUIP dimensions that were selected based on the Rotation 26 data; and data collected from Rotation 28, Time 2 personnel (Sample 3) were used to verify the importance of the dimensions used to form the scales.

Based on the JAQ Sample 1 data collection, dimensions with mean criticality scores less than 6.0 were dropped from consideration, leaving nine dimensions. The results of the Sample 2 data collection showed that all of the enlisted dimensions were considered to be important, to some degree, for NCOs; however, several dimensions were dropped to minimize the overlap between the NCO dimensions and the enlisted dimensions. For example, the enlisted dimension of Leadership and Effort was dropped because several of the NCO dimensions elaborate on

the constructs implied by the lower level dimension. The final set of dimensions included in the scales is shown in Table 7-14.

The MFO NCO rating scales were developed for the selected dimensions by modifying existing scales. Specifically, the behavioral anchors were removed from the relevant enlisted scales because many of the statements did not apply to NCOs. Similarly structured, behaviorally anchored rating scales had also been developed under the ECQUIP project for the NCO dimensions, and these were also modified to

Table 7-14
MFO NCO Performance Dimensions Used in Rating Scale Development

Following Regulations, Policies, and Procedures
Maintaining Assigned Equipment
Security and Guard Duties
Appearance and Hygiene
Self-Development
Physical Fitness
Cultural Involvement and Awareness
Communicating Orally
Demonstrating Effort and Initiative
Demonstrating Integrity and Discipline
Relating and Cooperating with Others
Motivating Others
Directing, Monitoring, and Supervising Work
Demonstrating Responsiveness

eliminate the behavioral anchors, because many of these statements dealt with activities that would not be performed in the Sinai. The ECQUIP NCO scales were further tailored by editing the behavioral summary statements to better reflect MFO performance requirements. The completed set of MFO NCO rating scales is provided in the final report by Reynolds and Campbell (in preparation).

MFO NCO Rating Scale Administration

The NCO rating scales were administered to 44 supervisors of 116 NCOs stationed in the Sinai as a part of MFO Rotation 28. The NCO scales were administered according to the same procedures as the enlisted scales (described beforehand). Of the 116 NCOs rated, 50 could be identified as AC NCOs, 55 were RC NCOs, and the service component of the remaining 11 could not be identified.

NCO PERFORMANCE MEASURES: RESULTS

Performance information collected from NCOs in the Sinai included both NCO rating scale data and Job Knowledge Test data. In this section, descriptive summaries are presented for both of these measures, followed by analyses comparing the performance of AC and RC personnel.

NCO Rating Scale Results

Scale means, standard deviations, and response ranges are shown in Table 7-15. Note that raters of NCOs did not use the full range of some scales, and similarly, the means tend to be higher than those reported on the enlisted scales. Scale standard deviations are roughly equivalent. Compared to junior enlisted soldiers (see Table 7-6), NCOs tended to receive higher scores. This pattern might be expected when comparing more experienced, and more highly selected, ratees to those with less experience.

An average across all 14 NCO scales was computed as a summary measure, and the descriptive statistics on this variable are reported in the last row of Table 7-15. The internal consistency reliability (coefficient alpha) for this summary measure was $r = .88$ for this sample. The use of factor analysis was not considered here because of the large number of scales (14) and the relatively small sample of NCOs with data on all variables (116). Additionally, because the NCO scales are in an earlier stage of development, basing an initial understanding of the structure of NCO performance on a small and unique sample could be misleading.

Table 7-15
Descriptive Statistics for NCO Rating Scales

Scale	Mean	SD	Range
Maintaining Equipment	5.28	1.13	2 - 7
Oral Communication	5.03	1.31	2 - 7
Effort and Initiative	4.91	1.56	1 - 7
Following Regulations, Policies, Procedures	4.94	1.24	2 - 7
Integrity and Discipline	5.09	1.38	1 - 7
Relating and Cooperating With Others	4.89	1.51	1 - 7
Motivating Others	4.65	1.44	1 - 7
Directing, Monitoring, Supervising Work	4.79	1.39	1 - 7
Demonstrating Responsiveness	4.83	1.39	1 - 7
Appearance and Hygiene	5.69	1.34	1 - 7
Self-Development	5.01	1.50	1 - 7
Security and Guard Duties	5.68	1.06	3 - 7
Cultural Involvement and Awareness	4.70	1.39	1 - 7
Physical Fitness	5.22	1.52	1 - 7
Average Rating Score	5.05	.87	2.4-6.9

Note: $N = 116$.

NCO Job Knowledge Test Results

One hundred and nine NCOs completed the Job Knowledge Test under the same conditions as the junior enlisted soldiers. Five cases were eliminated from the sample because of high scores on the error measures. Descriptive statistics on the Job Knowledge Test for the 104 remaining NCOs are reported in Table 7-16. It is important to recognize that the Job Knowledge Test was originally developed to assess junior enlisted personnel; thus, the test's applicability to NCOs as a knowledge measure may be questionable.

Table 7-16
Descriptive Statistics, Reliabilities for Job Knowledge Task Tests
(NCOs only)

Task	Mean	SD
Describe the zonal structure of the Sinai	69	29
Identify do's and don'ts of contacts with Egyptians	62	28
Describe the mission tasks for four levels of org. field sites	75	32
Estimate range	41	30
Perform search and scan procedures	46	24
Identify specific aircraft by type and origin	68	29
Identify Arab Republic of Egypt (ARE) forces	66	30
Maintain an M16A2 Rifle	68	32
Prepare incident reports	47	32
Prepare routine/recurring reports	64	23
Send a radio message	66	35
React to threatening, suspicious, or unusual incidents and adhere to defensive procedures	75	30
Follow rules for use of force and employment of firearms	76	34
Perform operational survival techniques	54	22
Take action on incidents involving vehicles	46	32
Recognize explosive hazards of the Sinai	38	26
Engage targets with M16A2 rifle	30	20
Determine grid coordinates	60	36
Give first aid for heat injuries	66	33
Perform mouth-to-mouth resuscitation	61	34
Guide a helicopter to a landing point	52	25
Perform self-extraction from a minefield	49	24
Collect and report information	59	28
Request a medical evacuation	58	32
General Soldiering Knowledge	56	16
MFO-Specific Soldiering Knowledge	62	19
Total test score	59	17

Note. $N = 104$.

Relationships between the NCO rating scales and the test subscores are reported in Table 7-17. The pattern of low relationships between these measures suggests that the Job Knowledge Test may not be an adequate measure of the knowledge that underlies NCO performance.

Table 7-17
Intercorrelations Among Average NCO Ratings and Knowledge Test Subscores

	Total JK Test Score	General Soldiering	MFO Soldiering
General Soldiering	.91**		
MFO Soldiering	.95**	.75**	
Average NCO Rating	-.03	.02	-.06

** $p < .01$.

Note. For correlations among test scores $N = 104$, and for correlations between ratings factors and test scores $N = 86$.

Comparisons Between Active and Reserve Component NCOs

As indicated above, the unique make up of Rotation 28 included NCOs drawn from both the AC and RC. To test whether there are differences in the performance levels between the NCOs with these backgrounds, mean comparisons were made on the rating scale scores and the Job Knowledge Test subscores between these groups. The results of this comparison are shown in Table 7-18.

The data presented in Table 7-18 suggest two conclusions regarding this comparison. First, RC NCOs received lower ratings than AC NCOs on several dimensions. Second, the Job Knowledge Test scores were essentially equivalent between these groups. Regarding the rating differences, 5 of the 14 scales, as well as the average ratings score, showed significant differences in favor of the AC NCOs. These differences range in size between a half and a whole standard deviation on the measures. It is interesting to note, however, that one of the few areas in which RC NCOs were rated higher than their AC colleagues was

Table 7-18
Means and Standard Deviations for Active Component and Reserve Component NCOs on Several Performance Measures

Performance Measure	Mean		Standard Deviation	
	Active	Reserve	Active	Reserve
Rating Scales				
Relating and Cooperating With Others	4.90	4.95	1.68	1.41
Motivating Others	5.02	4.38*	1.39	1.46
Following Regulations, Policies, and Procedures	5.12	4.81	1.30	1.22
Demonstrating Effort and Initiative	5.12	4.78	1.49	1.65
Communicating Orally	5.18	4.96	1.30	1.36
Demonstrating Integrity and Discipline	5.06	5.07	1.24	1.55
Directing, Monitoring, and Supervising Work	5.28	4.42**	1.18	1.45
Demonstrating Responsiveness	5.14	4.65	1.47	1.25
Maintaining Assigned Equipment	5.82	4.85**	.92	1.14
Security and Guard Duties	5.90	5.49	.97	1.17
Appearance and Hygiene	5.92	5.44	1.03	1.54
Self-Development	5.46	4.62**	1.18	1.75
Physical Fitness	5.70	4.85**	1.43	1.58
Cultural Involvement and Awareness	4.56	4.78	1.40	1.38
Average Rating Score	5.30	4.86*	.80	.92
Knowledge Test Summary Scores				
General Soldiering Knowledge	57	54	16	17
MFO-Specific Knowledge	62	62	19	20
Total Test Score	60	60	16	17

*$p < .05$ **$p < .01$

Note: $N = 50, 55$ respectively for Active Component, Reserve Component Ratees. $N = 40, 44$ respectively for Active Component, Reserve Component examinees taking the Job Knowledge Test.

on the "Cultural Involvement and Awareness" dimension. Recall that this one dimension was viewed as significantly more critical by RC NCOs than by AC NCOs responding to the JAQ.

It was hypothesized that one reason for these group differences could be differential rating patterns provided by raters from the alternate service component. To test whether AC NCO raters were rating RC NCOs lower than their AC peers, 2 by 2 analyses of variance (ANOVA) were conducted. These analyses compared ratings provided by raters from both service component groups with the service component of the ratees. A significant interaction would indicate that raters viewed ratees from their own component differently from ratees from the alternate component.

The results of the ANOVAs did not support the differential rating hypothesis. Specifically, RC ratees were generally rated lower by ratees from both service components. However, these analyses did reveal an interesting pattern: on most dimensions, RC NCOs tended to rate their own NCOs lower, and the AC NCOs higher, than did the Regular Army raters. That is, the difference between the performance of the NCOs from different service components was more profound for the raters from the RC.

SUMMARY AND CONCLUSIONS

The measures of MFO peacekeeper performance described in this chapter were designed to fulfill two purposes: to provide criteria in a larger effort to validate measures that may predict performance as an MFO peacekeeper and to describe the performance levels of the participants in the 28th Rotation for the mission. Two aspects of the performance domain were considered independently: motivational or "will-do" aspects, and job proficiency on various important knowledge and task areas or "can-do" aspects of performance. Based on efforts to specify the content of the domain, two measures were developed to assess performance (rating scales and a knowledge test).

Most soldiers serving on the MFO mission are drawn from the infantryman MOS, and for this reason this research used prior work to define the general soldiering and 11B performance domain as a starting

point. The importance of many of these constructs and tasks for performance in the Sinai was supported by this work; however, several Sinai-specific requirements were identified. For example, the construct-based rating scales include new dimensions for "Cultural Involvement and Awareness" and "Security and Guard Duties" as well as Sinai-specific definitions and examples of performance on common soldiering dimensions. Although several MOS have security and guard duties as a part of their regular activities (e.g., Military Police), this dimension is unique in this context because it would not typically be such a critical component of the infantryman's job.

Factor analyses of the rating scale dimensions indicated that the structure of the dimensions is quite similar to that found for soldiers, Army-wide, in prior research. The Sinai-specific dimensions tended to fit best with other technical skill and motivation dimensions. The Job Knowledge Test has a heavy emphasis on observation and identification skills as well as reporting procedures, consistent with the central activities of the MFO peacekeeper. Scores on the knowledge test were broken down into a score for tasks dealing with MFO-specific knowledge and general soldiering knowledge, commensurate with the structure of prior tests of soldier knowledge.

The work presented here represents a typical criterion development effort conducted for a job in an atypical environment. The MFO peacekeeping mission is atypical because it places individuals trained in infantry (warfighting) skills in a situation where many of these skills may not be relevant and new skills may be critical. The results of this investigation indicate that both the similarities and the differences between the requirements of the MFO mission and those of regular soldiering are important for understanding the nature of performance in general and for selecting soldiers for the mission in particular.

The final set of dimensions used to develop the rating scales are similar to the dimensions found to be important for soldiering Army-wide, and the underlying structure of these scales is similar to that found for the Army-wide scales in earlier research. This finding is significant because it allows for a comparison between the structures obtained under different mission conditions. The finding that a similar structure was obtained for MFO-specific scales is consistent with current research on the nature of performance (e.g., Campbell et al., 1993). That

is, the nature of what makes for good performance is fairly stable across environments, even when the content of what is done is quite different. These findings indicate that having the required technical skills and knowledge, staying out of trouble, and maintaining your fitness and military bearing are the ingredients for being a good soldier, whether the soldier is in garrison in the United States or in the desert of the Sinai.

The finding of similar performance structures across missions must not be confused with similarity in content, however. The manner in which the rating dimensions were defined, and the examples of good and poor performance on which they are based, reflect the unique requirements of the MFO peacekeeper. The uniqueness of content was most evident in the task dimensions selected for testing.

Comparison of the tasks selected as most critical for the MFO mission to other sets of infantryman tasks demonstrates the largely passive nature of the mission. The critical tasks have a heavy emphasis on observation and identification skills as well as reporting procedures, consistent with the central activities of the MFO peacekeeper. By comparison, tasks selected through a similar process when developing a knowledge test for infantryman in general (cf. Campbell, 1986) tend to reflect a heavier emphasis on weapon use and maintenance, combat techniques, and navigation. Although it is not surprising that infantrymen in a well-defined peacekeeper role view different tasks as important compared to those who are in the traditional warfighter role, the stark differences between these content areas serve as an interesting contrast to the similarity in the rating dimensions. Again, this is taken as evidence that the dimensions of performance are consistent, even when the behaviors performed on various missions differ.

This research also included a preliminary examination of NCO performance in the Sinai. Through a series of job analysis survey efforts, the importance of several dimensions for the MFO mission was evaluated. Rating scales were developed to correspond to the most highly rated dimensions.

Results from these job analysis efforts indicated that some differences may exist in the performance requirements for MFO NCOs compared to NCOs who are on a stateside assignment. These differences were observed primarily on dimensions dealing with work organization,

training, technical skill, and writing, and the differences probably reflect the fact that the MFO mission is highly structured and typically routine. It is interesting to note that these differences were not as apparent for Rotation 28 NCOs; however, this difference may have been due to differences in the timing of the data collections between the various samples investigated.

Perhaps the most interesting findings stemmed from the fact that the Rotation 28 NCO sample allowed for performance comparisons between AC NCOs and RC NCOs, which revealed that AC NCOs tended to be rated higher than their RC peers. Some of the differences found between these groups may be explained simply by differences in supervisory experience: several of the dimensions with the biggest differences involve traditional supervisory responsibilities (e.g., motivating subordinates, directing and supervising work). It is reasonable to expect that AC NCOs whose pre-MFO daily activities emphasized these components would be superior in these areas. Other differences may be the result of different long-term priorities. For example, self-development may not have been a priority for RC NCOs, because developing one's military skills (through extra course work and training) would not be as instrumental to career advancement as it would be for AC NCOs.

It is also interesting to note that the largest performance difference favoring RC NCOs was on the "Cultural Involvement and Awareness" dimension, a dimension that RC NCOs rated as more important to overall performance than AC NCOs in the job analysis. This finding might indicate that RC NCOs placed more emphasis on the features of the MFO-mission that are unique to peacekeeping than did the AC NCOs.

When comparing NCOs from the two service components, it is critical to recognize that NCOs in both groups had performance scores that were above average in all areas. Superior performance should be expected from AC NCOs, who are full-time leaders and supervisors. The fact that the RC NCOs were rated higher in some areas attests to the value of a unique perspective they may bring to the peacekeeping task. Unfortunately, the design of this research did not allow for similar performance-level comparisons to be conducted for enlisted soldiers.

Aside from the description of the performance of the soldiers and NCOs participating in Rotation 28, the second focus of this effort was on the validation of predictors of peacekeeper performance. These findings suggest that measures found to predict performance of soldiers in other environments are likely to be useful here. Specifically, cognitive measures are likely to be important for the prediction of the technical aspects of the job, and personality and temperament measures may be important for predicting the other areas (e.g, "Personal Discipline" and "Physical Fitness and Military Bearing"). As noted in the introduction, because cognitive measures have already been given to all soldiers at the time of enlistment, the biggest gains may be made with the addition of noncognitive measures.

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8

TRAINING AND TASK PERFORMANCE

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INTRODUCTION

Military operations are only as successful as the training conducted in their preparation! Although that statement sounds like incontrovertible truth which hardly anyone would deny, the literature on peacekeeping operations relegates training to a decidedly secondary role. Most authors focus on geopolitical issues, internationalism, military strategy, and economics. To the extent that training is addressed at all, it is only with respect to a limited number of problems, e.g., the "tiger" vs. "pussycat" phenomenon.

Some military authorities (e.g., Diehl, 1988; Kutter, 1986) believe that using highly trained combat soldiers for peacekeeping operations places our troops in a paradoxical situation. Successful peacekeeping soldiers must function well in environments where only minimal force is applied. However, their strength under these circumstances lies not in their lethality (behaving like a tiger), but rather in their ability to make compromises and negotiate (in other words, act like a pussycat).

Kutter (1986) claims that previous behavioral research has fairly conclusively established that careful predeployment training can succeed in preparing both soldiers and leaders psychologically for peacekeeping. During preparation for deployment, of necessity, most training focuses more on mission-relevant rather than basic soldiering tasks. The emphasis of subsequent postdeployment training reverts back to combat performance as a way of recapturing competencies that may degrade during peacekeeping service.

Peace operations are generally not the sole focus of predeployment training. Training on established combat and basic soldier tasks continues, to a degree, throughout the predeployment period. Since most facets of normal military operations apply to peace operations, training to enhance the skills of a unit's primary mission should be a significant feature of predeployment training *(Field Manual 100-23)*. Of course, the singular mission of Rotation 28 was the Sinai assignment. Indeed, the unit was formed solely for this mission. Unlike units from the active component (AC), it did not have to adjust from a warfighting mission to a peacekeeping operation, nor did it need to reorient, as an intact unit, to a warfighting mission afterwards. This unique characteristic could prove advantageous when deploying a newly formed composite unit to a stable, peacekeeping operation.

The possible rapid degradation of warfighting skills that are not applied or trained during a peacekeeping mission has been recognized as a drawback to deploying AC units to such missions (Taws and Peters, 1995). The drawback comes from an immediate reduction in readiness to the unit's parent brigade. The time needed to prepare (about 3 months), execute (6 months), and then reorient to warfighting afterwards (at least 3 months) adds up to at least 1 year of reduced readiness for the brigade. In fact, studies of units that have deployed in recent peace operations in Macedonia, Somalia, Haiti, and the Sinai have demonstrated that most units require between 4 and 6 months to return to a normal level of readiness (Center for Army Lessons Learned, 1996). The time to restore normal combat readiness includes time for block leave, personnel restructuring, individual training, and collective training.

In contrast, a unit derived largely from reserve volunteers has much less of a negative impact on overall readiness because a go-to-war unit is not being immediately impacted. In fact, units from the Army National Guard (ARNG) usually have about 20% of their positions filled by soldiers who are not yet qualified in a military occupational specialty (MOS) and are thus not deployable (Buddin and Grissmer, 1994). Furthermore, as is the case with Rotation 28, volunteers were drawn from 37 different units (across nine battalions) of the parent division (the 29th Infantry Division), so there is unlikely to be any concentrated negative impact on unit readiness. Furthermore, upon return from a peacekeeping mission, the unit's readiness can be upgraded with better trained soldiers

rejoining the ranks, as occurred in the present study (Smith and Hagman, Chapter 16). Constructing a peacekeeping unit from reserve volunteers, then, has likely advantages to overall readiness. Because of these advantages, it is instructive to describe the predeployment training activities of Rotation 28 and contrast it with the predeployment training phase of an AC unit.

There are very few treatments of peacekeeping operations which deal with the everyday problems of planning and implementing a training program for a specific peacekeeping mission. This chapter attempts to document all of the stages related to the training activities of the 4th Battalion, 505th Parachute Infantry Regiment (Rotation 28) in preparation for deployment to the Multinational Force and Observers (MFO) Sinai peacekeeping mission. This chapter includes an overview of the training requirement; an explanation of the sources of information; and a description of the occupational and military training backgrounds of the volunteers, the predeployment training phases, the mission-relevant and soldiering tasks trained, the certification exercise, performance on job knowledge tests, and training activities and physical performance while in the Sinai. Also, described briefly are the educational and professional development accomplishments of the unit while in the Sinai. When appropriate, a baseline comparison with an AC unit is provided. Finally, a discussion of our observations and findings is presented along with recommendations.

Overview of Training Requirement

Rotation 28 was formed from reserve volunteers and Regular Army (RA) soldiers solely for peace operations in the Sinai (for a complete description of demographics of this rotation, cf. Farr, Chapter 5). The predeployment training activities for Rotation 28 spanned a period of 11 months, beginning with a planning stage in February 1994 and ending with deployment to the Sinai in January 1995. The training encompassed a variety of topics that ultimately shifted the soldiers' main focus from wartime missions to the unique demands of peace operations, such as learning the history and culture of the Sinai region, making detailed observations and reports, and becoming familiar with new and explicitly defined rules of engagement.

A key element of the MFO mission was to observe and report violations of the Egypt-Israel peace treaty. The soldiers were required not only to be able to recognize aircraft, ships, vehicles, license plates, and uniforms, but they also needed to be knowledgeable about standard reporting formats for the mission. Learning the individual tasks unique to the MFO mission was critical in the predeployment training phase. Other more traditional facets of training, such as personal discipline and physical training, were included in the schedule before deployment. A program to develop unit cohesion and sharpen leadership skills was another component of the predeployment preparation. Training on small-unit collective tasks—mainly squad level—was also conducted, in part to develop cohesion. Training on traditional soldiering tasks was conducted in three tiers, two during the predeployment phase and one while in the Sinai.

The training was conducted mostly by the leadership cadre of Rotation 28. These internal trainers gained current proficiency on the tasks during a "train-the-trainer" period, just prior to the arrival of the bulk of the unit. Notable exceptions to the internal training were the Infantry Leaders Course (ILC) at Fort Benning, the Individual Ready Reserve (IRR) training at Fort McCoy, and some weapons and specialty training, such as cooking and generator repair, conducted at Fort Bragg.

Training in the Sinai. Maintaining individual soldier skills during a Sinai tour is important for members of all rotations, regardless of their follow-on assignments. It is useful, then, to examine the daily patterns of training that occur during assignment to the Sinai. Composite units are unlikely to have follow-on missions simply because they disperse upon redeployment. This can prove advantageous in peacekeeping operations. For example, a composite unit can, without later penalty, emphasize peacekeeping tasks throughout the mission. Some of those tasks would surely be susceptible to decay unless used or trained regularly. On the other hand, an RA unit may, in anticipation of its follow-on mission, shift its emphasis away from peacekeeping tasks toward individual soldier tasks midway through a rotation. Balancing the training needs of the immediate mission against the need to maintain selected soldier skills is a significant judgment call for trainers at all levels, but especially at the squad level, where responsibilty rests in the day-to-day training at the Sinai's remote sites. Precisely how this balance is established can be

revealed from daily training patterns. Consequently, both predeployment training and subsequent training during the mission must be analyzed to gain a broad understanding of training for peace operations.

Since Rotation 28 was the first AC/RC unit to deploy to the Sinai, documentation of their predeployment training can be valuable in understanding the planning, scope of training responsibility, training execution, and certification as "good to go" to the Sinai. This documentation, then, can serve as a formulation for possible future efforts. The unique training requirements for a composite task force become clear when they are contrasted with similar dimensions from an active unit. These can then be considered in the broader debate on the value of forming and training composite units for success in peace operations.

Sources of Information

Information on the predeployment training was assembled from several sources: the training guidance issued by the Commander of Rotation 28; the unit's training calendar; the memorandum of instruction for MFO sector training and certification exercise; the MFO Infantry Battalion predeployment training package; the after action review of the IRR training; the surveys developed and administered by the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI); task performance booklets created by ARI for use during the certification exercise; observations by ARI researchers during the training; and interviews with squad leaders and staff of the unit's S-3 Section (Operations and Training). Also, individuals from the U.S. Army Forces Command, the National Guard Bureau, and the MFO Cell of the XVIII Airborne Corps provided specific details on background. For the comparison to AC units that had already served in the Sinai, reviews of training calendars, interviews with key personnel, and surveys and tests with unit members during deployment to the Sinai were conducted.

Rather than have a single unit serve as the comparison baseline, more than one rotation was used to form the baseline. This was done not only to avoid a direct comparison between two rotations, but also to take into account variations between the preparation and deployment of units from the AC. Information and data from at least four rotations were

reviewed in forming the comparison unit, hereafter referred to collectively as the AC unit, in contrast to Rotation 28 composite unit.

Training Background of Soldiers

The demographic characteristics of Rotation 28 are covered elsewhere in this volume (cf. Farr, Chapter 5). Additonal backgound information relevant to predeployment training concerns the volunteers' prior occupations and military training. Table 8-1, which lists many of the job titles of employed volunteers reporting to Fort Bragg, reveals a wide range of occupations, with a particular emphasis on the trades, laborers, and security. This information was gained from an ARI survey administered before deployment, which included a question asking "If you were employed prior to this training, what was your civilian job?"

Table 8-1
Occupational Categories of Reserve Volunteers Prior to MFO Task Force (n=214, enlisted personnel)

Category	n	Examples
Trades or craft worker	51	electrician, metal sheet worker
Carpenter/Laborer	32	construction, dockworker, stocker
Security	27	police officer, security guard
Restaurant	20	cook, waiter, bartender
Administrative	19	property management, fund raiser, residential advisor
Transportation	14	home delivery, truck driver
Sales	14	hardware, grocery, customer service
Machine operator	12	forklift/crane/lathe operator
Technical	11	pharmacy technician, data processing
Government	5	postal service, park ranger
Office	4	pay clerk, secretary
Farm worker	2	farmer
Professional analyst	2	chemist, communication systems
Proprietor	1	owner of business

Such diversity places added demand on the trainers. Not only are the volunteers, on average, less experienced as soldiers but they also arrive with a wide assortment of skills and work experiences that mix differently with the skills needed for peacekeeping in the Sinai. In view of the range of occupations, the prospects for much "transfer of training" is not apparent, with the possible exceptions of security guards, truck drivers, and cooks.

The military training background is also quite mixed. For the overall unit, the frequencies for various training and professional development programs are presented in Table 8-2. These data were derived from the ARI surveys given to members of Rotation 28. The data are presented in terms of the respective percentages within the junior enlisted, noncommisioned officer (NCO), and officer ranks of the unit.

Table 8-2
Military Training Backgrounds of Rotation 28

Achievement	Jr Enl	NCO	Officer
Air Assault	7%	26%	33%
Airborne	9	20	52
Bradley Fighting Vehicle	1	1	5
Combat Lifesaver	11	16	10
Pathfinder	1	3	5
Ranger	0	2	29
Sniper	3	8	5
Primary Leadership	16	80	-
Basic NCO	3	46	-
Advanced NCO	0	2	-
Battle Staff NCO	0	3	-
Officer Basic	-	2	90
Combined Arms Services	-	2	10
Command and General Staff	-	1	0

Note. Some NCO reserve volunteers served as officers while on active duty.

PREDEPLOYMENT TRAINING PHASES

The training concept called for dividing the predeployment training into three phases. These phases were geared to the formation of the unit in three stages, beginning with key leaders and staff personnel, adding the leadership cadre, and finally the bulk of the junior enlisted volunteers. An overview of each phase is described here, with details to follow. Displayed in Figure 8-1 is the time course change in unit size during the 11-month predeployment phase.

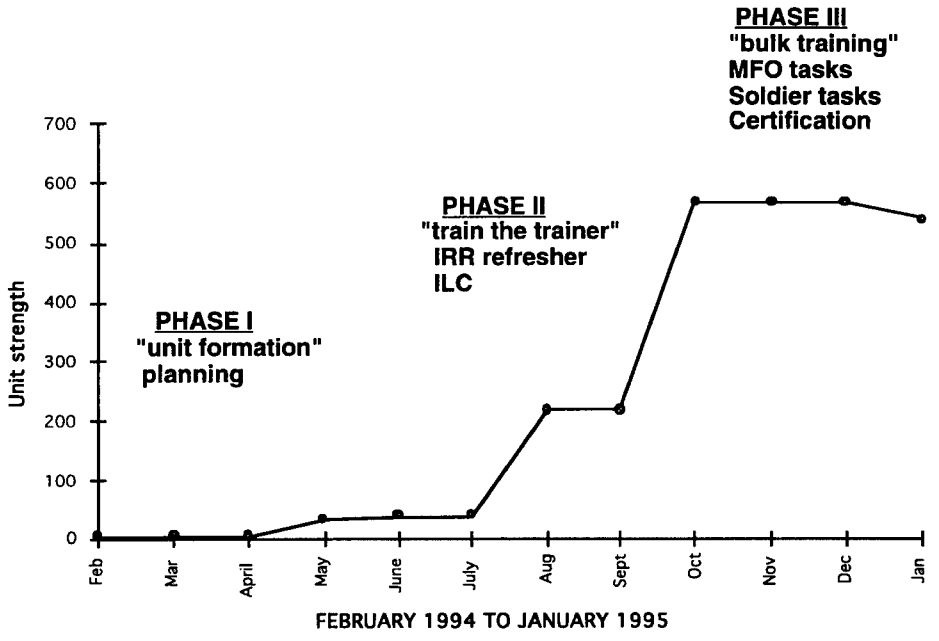

Figure 8-1. Unit strength during the predeployment training phase.

Overview Phase I. Phase I occurred between 7 February 1994 and 2 May 1994. The first phase was oriented toward planning by the first five members to join the staff. These were the Commander, the S-3 Section Chief (operations and training), and Property Book Officer, all from the AC, and the Executive Officer and S-4 Section Chief (logistics), both from the ARNG. In April, the Command Sergeant Major (AC) joined the unit. The mission analysis was performed during this phase, and a mission essential task list was established with associated collective and

individual tasks. The primary outcome was the predeployment training guidance issued on 6 May 1994.

Overview Phase II. Phase II occurred between 3 May and 30 September 1994. The emphasis during this phase was to train the trainer on both soldiering tasks, which are commonly referred to in the Army as common tasks, and MFO-specific tasks. During this phase, 29 soldiers were added to the unit in early May, 3 in June, and 181 in early August, bringing the unit strength to 219. The second phase concluded with the unit's leadership participating in the ILC at Fort Benning. Also, the refresher training of 36 volunteers from the IRR took place at Fort McCoy, WI, for 2 weeks in June. The IRR training, which did not include MFO-specific tasks, was conducted by a unit from the 84th Division (Training), Milwaukee, WI.

Overview Phase III. Phase III occurred between 1 October 1994 and 7 January 1995. This final phase served as the bulk training period for the unit, since most soldiers (an additional 351) joined the unit in early October, raising the unit strength to 570. This phase covered rifle marksmanship, common task training, squad training and patrolling, and MFO-specific tasks (e.g., Arabic phrases, aircraft identification) and MFO specialized tasks (field sanitation, generator operations, cooking). The third phase included an MFO site Field Training Exercise from 28 November to 9 December 1994. The culmination of the third phase was a certification exercise from 12 to 16 December 1994, followed by 2 weeks of block leave. The advance party departed for the Sinai on 7 January 1995.

Training Support

The principal form of training support was through the MFO Cell of the XVIII Airborne Corps. The cell, consisting of a Lieutenant Colonel and a civilian aid, served as the repository of training materials, a link to previous rotations, and an interface to the rotation that was then in the Sinai as well as the MFO Forces headquartered in the North Camp of the Sinai sector. Since the MFO Cell was located at Fort Bragg, their expertise was readily available to Rotation 28.

A key document provided to Rotation 28 was the *MFO Predeployment Training Management Plan*, prepared by the MFO Forces

headquarters. This document assisted the leadership of the unit in identifying the essential predeployment training requirements. It also recommended that rotation commanders tailor their training, taking into account the current levels of training, available equipment and resources, as well as time available. It also advised the inclusion of some senior trainers in a reconnaissance to the Sinai, enabling them to better direct the predeployment training.

The management plan identified 18 lessons, each specifying objectives, conditions, and standards for the training of various tasks and background knowledge specific to the Sinai mission, as well as required equipment and a suggested method for the conduct of training. Table 8-3 lists the 18 lesson areas.

Table 8-3
Predeployment Lessons Concerning MFO-Specific Tasks

1) Introduction to the MFO	10) Use of Force and Firearms
2) Introduction to the Sinai	11) Survival
3) Field Sites	12) Hygiene
4) Patrols	13) First Aid
5) Observation	14) Vehicle Drills
6) Recognition	15) Explosive Ordnance
7) Reporting Procedures	16) Helicopter Operations
8) Communications	17) Cooking
9) Threat Assessment and Defensive Measures	18) Generators

Throughout the predeployment training, the commander sought opportunities to build teams. Training on the mission-essential tasks was to be conducted primarily by squad leaders. One purpose for this was to encourage the early development of small-unit cohesion, which would presumably promote performance of the units during their deployment to the Sinai. Specific details on each of the three phases in presented below, followed by a comparison to an AC unit.

Training Phase I

The planning phase was led by the unit commander, who had relevant experience from an earlier assignment to the MFO Sinai mission. Participating in the planning phase, among others, was the head of the S-3 Section who also had been on an earlier Sinai assignment. Among the early objectives was a compilation of soldiering tasks that would be trained first to the leadership cadre during Phase II and in turn by the leadership cadre to the bulk of the unit during Phase III. These tasks were segmented into three tiers. The first two tiers, detailed in Table 8-4, were trained at Fort Bragg during the predeployment period. The third tier of tasks, detailed later in this chapter, were to be trained while in the Sinai in preparation for the Expert Infantryman's Badge (EIB) award. Each tier is further divided into blocks, most blocks comprising tasks from a common area, such as first aid in Block 2.

Training Phase II

Early in Phase II, the unit increased to 37 members with the addition of volunteers from the ARNG. The unit held Battalion training meetings every Thursday morning, attended by all commanders, specialty platoon leaders, primary and secondary staff, and the command sergeant major. Battalion training support meetings were held every Monday afternoon to coordinate resources needed for training, such as ammunition, training areas, and transportation. During the early part of this phase, there was a concentration on both the physical training itself and how to conduct physical training. A diagnostic Army Physical Fitness Test (APFT) was conducted on 13 May. A record APFT test was held on 22 July.

The unit increased in size substantially during this phase, with 219 members on board by early August. The "train-the-trainer" process was conducted in August on the Tier 1 and Tier 2 tasks outlined in Table 8-4. Since the trainers were NCOs familiar with many of these tasks, the training was more of a refresher course. The first MFO-specific training was conducted on 25 May with Sinai background as the initial topic. The remaining MFO topics, outlined earlier in Table 8-3, were covered periodically during this second phase. Other significant training activities during this second phase were the IRR refresher training and the leader's training, described below.

Table 8-4

Soldiering Tasks Trained During Predeployment

TIER 1 TASKS

Block 1

- Estimate range
- Navigate from point to point dismounted
- Determine grid coordinates
- Locate an unknown point by intersection
- Identify topographical symbols on a map
- Determine location on the ground by terrain association
- Determine magnetic azimith
- Identify terrain features on a map
- Orient a map to the ground by terrain association
- Locate an unknown point by resection
- Measure distance on a map

Block 2

- Prevent shock
- Splint a fracture
- Evaluate a casualty
- Practice preventive medicine
- Put on a tourniquet
- Apply dressing to an open chest wound
- Transport casualty using one man carry
- Clear object from throat of conscious casualty
- Put on field dressing
- Perform mouth-to-mouth resuscitation
- Recognize and give first aid for heat injuries
- Give first aid for burns
- Apply dressing to an open abdominal wound
- Apply dressing to an open head wound
- Transport casualty using two man carry

Block 3

- Zero an M16A2 rifle
- Maintain an M16A2 rifle
- Unload an M16A2 rifle
- Load an M16A2 rifle
- Maintain an M203
- Load an M203
- Correct malfunction on an M203
- Perform maintenance on an M249 SAW
- Zero an M249 SAW
- Operate a 9MM
- Engage target with an M16A2 rifle
- Perform a functions check on an M16A2
- Correct malfunction on an M16A2 rifle
- Zero an M203
- Perform a functions check on an M203
- Unload an M203
- Engage targets with an M203
- Operate an M249 SAW
- Perform maintenance on 9MM

(table continues)

Table 8-4 (Continued)

Soldiering Tasks Trained During Predeployment

TIER 2 TASKS

Block 4	
Use challenge and password	Report information
Noise, light, and litter discipline	Operate a TA-312
Prepare a range card	Request medivac
Clear fields of fire	Operate night vision goggles
Block 5	
Perform self-extraction from a mine field	Move as a member of a fire team
Guide a helicopter	Search and scan
Locate mines by visual means	Move under direct fire
Use visual signaling techniques while dismounted	
Block 6	
Maintain M17 series protective mask	Decontaminate skin and personal equipment
Replace filters in M17 protective mask	
Block 7	
Send radio message	Recognize vehicles & aircraft
Perform surveillance	

IRR refresher training. Details of the IRR training are provided elsewhere in this book (cf. Palmer, Rumsey, Smith, & Wisher, Chapter 4). The critical areas of training during the IRR refresher training held at Fort McCoy, WI, were basic rifle marksmanship (day/night fire), the APFT, vehicle operations and maintenance, and common task training. In addition to the critical training areas, soldiers were also trained on topics such as guard duty, land navigation, radio-telephone operator procedures, civil disturbance, water safety, counterterrorism, military justice, and alcohol and drug abuse.

The common task training, along with the land navigation course, was integrated into a 4-day field training exercise. For the common tasks, a preassessment test on the 13 common tasks selected for training demonstrated an overall 72% "GO" rate before any training was

provided. The tasks that proved to be most difficult during the preassessment were "Use an automated signal operator instruction" (13% received "GO") and "Recognize friendly and threat armored vehicles and aircraft" (29% received "GO"). Upon completion of the refresher training, all soldiers tested received a "GO" on each task.

Other items during the refresher training included a memorandum from the commander of the receiving unit (Rotation 28) specifying the education programs available in the Sinai. A survey of interests in the education program was conducted. As detailed in Chapter 4, of the 36 soldiers reporting to Fort McCoy for refresher training, only 10 soldiers (28%) ultimately became members of Rotation 28.

Leaders' training. The leadership cadre of Rotation 28, 154 soldiers, reported to Fort Benning to attend the ILC from 26 August to 23 September. This course, specializing in infantry doctrine and tactics, as well as collective infantry skills, was the first major training event and the first opportunity for Rotation 28 to function as a unit, since many NCOs did not join the unit until early August. The ILC has three primay purposes: (1) to ensure that personnel are trained on the doctrinal standards of current squad/platoon level collective tasks, (2) to ensure that leaders are ready to conduct training to standard in their units, and (3) to promote teamwork and cohesion through shared common experiences. Detailed information, along with observations, on that training was obtained by researchers at ARI's field unit at Fort Benning and is reported elsewhere in this volume (cf. Salter, Fober, Pleban, & Valentine, Chapter 9).

Training Phase III

The training of soldiering tasks as described in Table 8-4 was conducted during approximately the first 5 weeks of the third phase (10 October to 12 November). Training was primarily accomplished at the squad level. Squad leaders, all of whom participated in the "train-the-trainer" program during Phase II, were the primary instructors. A "crawl-walk-run" approach to training—that is a level of instruction starting at an elementary level and progressing to a level of task performance conforming to the required conditions and standards—was adopted.

Included in this 6-week period was 2 weeks of squad training, during which each squad was trained on squad collective tasks. A series of situation training exercise lanes were used, each lane accommodating about three collective tasks. Each company conducted this training internally for each of its squads.

Also during this period was a 4-day patrolling exercise. The goal was to train fire teams and squads in dismounted patrolling, such as conducting a local security patrol, and establishing temporary observation posts, activities that would be performed at the remote sites in the Sinai. Each company set up a temporary sector control center, and, in response to orders from the company commanders, a fire team or squad conducted the patrol. The training for this exercise was conducted internally.

The concentrated training of MFO tasks was conducted by the companies from 14-23 November. This training was the soldier's introduction to the Sinai. In addition to the MFO-specific tasks (lessons 1-15 in Table 8-3), training on helicopter operations and specialized tasks (cooking, generator operations, truck/bus driving, field sanitation, mail handling, and life guard procedures) was conducted during this period. Trainers from other units at Fort Bragg conducted most of this specialized training.

Sector training. Squad sector training was conducted as a battalion-level field training exercise from 28 November to 9 December 1994. The goal of this exercise was for the battalion to execute the mission in the Fort Bragg training area as it would be conducted in the Sinai. Two line companies occupied the training site for the first 5 days and the other two companies the last 5 days. The sites were constructed by the companies 2 days before the training. During the sector training, posts were constructed to resemble the layouts of a remote site (either an observation post, check point, or sector control center) as would be found in the Sinai. Every detail from sleeping quarters to fighting positions was replicated as closely as possible. During the occupation of sites, the squads trained for 4 days on specific MFO tasks that would be tested during the external certification exercise the following week. This training period was also referred to as MFO site training.

Certification Exercise

An external evaluation by members of the 4th Battalion, 325th Parachute Infantry Regiment was held from 12-16 December 1994 at Fort Bragg. This evaluation served as the certification exercise that would establish the readiness of Rotation 28 to accomplish the Sinai mission. The evaluating battalion had been assigned to the Sinai for Rotation 26, so they obviously had appropriate qualifications to evaluate soldiers on critical MFO tasks.

The companies reoccupied the same posts that they used during sector training. An observer/controller was attached to each site to evaluate squad collective tasks, individual soldiering tasks, and the MFO-specific tasks. There were eight critical MFO-specific tasks evaluated during the certification exercise. These tasks were:

- Aircraft Identification—Recognize Arab Republic of Egypt, Israeli Defense Force, and MFO fixed wing and rotary wing aircraft.
- Vehicle Identification—Recognize Arab Republic of Egypt and Israeli Defense Force military vehicles.
- Arabic Phrases—Translate selected written English words or phrases verbally into Arabic.
- Arabic Numbers—Recognize and translate Arabic numbers and number combinations into English.
- Sinai Area License Plates—Identify Israeli and Egyptian license plates.
- Uniforms and Insignia—Recognize uniforms and insignia found in the Sinai area of operation.
- Rules of Engagement—Understand and comply with MFO rules of engagement.
- Treaty Background—Display knowledge of the Treaty of Peace, 1979.

Data collection instruments and results. A meeting between ARI researchers and key members of the evaluating unit was held in early December to determine the level at which performance data could be

recorded. The focus was to be on the eight MFO-specific tasks listed above. The outcome of the meeting resulted in ARI developing and producing special task-recording booklets that would not burden the evaluation unit, but would still provide ARI with data sufficient for analytic purposes. Booklets consisted of 15 pages, with each page listing the eight critical individual MFO tasks. There was also space for the soldier's name, unit, and a series of columns for recording how many attempts at a task a soldier required before achieving a "GO." In previous research (Kern, Wisher, Sabol, & Farr, 1994) this variable, number of attempts to achieve a "GO," has proven to be a sensitive indicator of how well a soldier knew, remembered, or sustained performance on a particular task.

A total of 535 soldiers from Rotation 28 were evaluated. Those who remained at Fort Bragg as part of the rear detachment were not tested. Soldiers were required to achieve a "GO" rating on all eight critical MFO tasks before they were approved for deployment to the Sinai. There was no set limit on the number of attempts a soldier could make on a particular task, but the evaluators maintained established conditions and standards in qualifying a soldier as a "GO" for any particular task.

Overall, soldiers performed extremely well, with 98% of the tasks being performed successfully on the first attempt. The breakout per task with the percentage of soldiers obtaining a "GO" on first attempt are listed in Table 8-5.

The data were also analyzed at the company level—four line companies and a headquarters company. These data were examined in terms of percentage of soldiers in each company who scored a "GO" on all eight critical tasks on the first attempt, also referred to as first-time pass. The average percentage was 90%. The performance of one company is noteworthy, as its 74% was well below the relatively even performance of the others. There is currently no explanation for these differences; these scores might just as easily relate to the cohesion and motivation of the company as to the aptitudes and backgrounds of the unit members.

Table 8-5
Percentage of Soldiers Receiving a "GO" Rating on Misson-Related Tasks

Task	Percent "GO" (first attempt)
Aircraft Identification	97%
Vehicle Identification	96%
Arabic Phrases	100%
Arabic Numbers	98%
Sinai Area License Plates	98%
Uniforms and Insignia	98%
Rules of Engagement	99%
Treaty Background	96%

COMPARISON TO ACTIVE COMPONENT UNIT

Predeployment Phase

An AC battalion assigned to the Sinai mission was examined to contrast its period of preparation training prior to deployment with that of Rotation 28. The predeployment training for an AC unit assigned the MFO mission necessarily differs from a composite unit because the AC unit is already intact. No "build-up" phase is required, other than accessing some specialized personnel, such as linguists, into the unit. Rather, a somewhat abrupt shift from warfighting mission to preparation for a peacekeeping operation takes place. Obviously, the MFO-specific skills described earlier need to be acquired, so, of necessity, there is a period of intense training during the predeployment phase.

The AC battalion that was examined had been tasked with the mission 6 months (D-186) prior to their deployment date. (The convention of D + or - a number will be used. The D refers to day of deployment and the + or - refers to the number of days relative to the deployment date. Thus D-186 means 186 days prior to deployment.) Assignment to the mission was unexpected. The initial "steering committee" meeting within the battalion occurred on D-166. Internal planning for the predeployment training began on D-163, with the

assistant S-3 and two NCOs attending full time to this planning function. The main product of this planning was a predeployment Memorandum of Instruction similar to the training guidance developed by Rotation 28. During this period, the remainder of the battalion was busy with live fire exercises in preparation for a cycle of high preparedness in which the unit would remain on ready status from D-145 to D-114. During this time, no MFO training was conducted and planning was primarily limited to a small cell of individuals. Predeployment training began in earnest on D-111. As was the case with Rotation 28, the principal form of training support was through the MFO Cell of the XVIII Airborne Corps.

Soldiers from other units within the parent division were attached to the AC battalion to satisfy the proper personnel mix required for the MFO mission. The task force so established for the mission had 43 (about 8%) of its members from other units. They had the following military specialties: 21 military police, 6 medics, 5 linguists, 3 legal, 3 finance, 2 chaplain, 2 mental health, and 1 public affairs. Those remaining behind in the rear detachment (n=135) were primarily soldiers nearing either retirement or an expiration of term of service date. Most were available to the parent division for detail.

The initial week of MFO training consisted of 2-hour blocks of leader and individual training on tasks such as Arab customs and courtesies, rules of engagement, survival skills, and reporting procedures. The second week of training focused on squad leader training and validation, squad specialty training (e.g., radio transmission, cook), and an exercise conducted at the simulation center on post. The simulation exercise, essentially a command post exercise, used the JANUS system, a battalion-level, staff synchronization simulation trainer. In this particular application, each remote site, sector control center, and the tactical operations center were represented by computer terminals which, in turn, were networked into a command and control structure similar to the MFO mission. Icons in the simulation represented "opposing force" objects such as trucks moving down the main supply route, aircraft flying overhead, children asking for food at an observation post, and other daily activities typical during the Sinai mission. Linguists played the role of Arabic speakers interacting with soldiers at a remote site. Flash cards were briefly displayed for the aircraft or vehicle recognition task. The overall goal was to provide squad leaders and the task force chain of

command with the a big-picture understanding of observing and reporting to either a sector control center or the tactical operations center. The unit reported great success with such an exercise.

A physical mock-up of an MFO site was completed on D-97. Predeployment training for squads continued through D-66. This training period included basic and advanced marksmanship, specialty training, testing for the expert field medics badge, lifeguard training, and language training. A field training exercise, during which squad validation was internally conducted, started on D-61. Squad validation was completed on D-46. General preparation and block leave for the advance party took place next. The main body went on block leave from D-25 to D-9. Final preparations were underway during this period, with the first main body departing on D-Day.

As outlined in Table 8-6, the dissimilarity between predeployment training for the two rotations occurred during two periods. The table divides the predeployment period into four segments, each tied to a significant event for one or the other of the units. First, between D-342 and D-164, Rotation 28 was forming as a unit and increasing in strength from 5 to 32, while during the same relative period, the AC unit had virtually no connection to the MFO mission, other than understanding it to be a future assignment. The second dissimilarity was apparent from the D-163 to D-112 period, during which Rotation 28 increased in strength to 219, most of whom attended the ILC at Fort Benning. During the same relative period, the AC unit had limited involvement with any planning action, since they were on ready status during this time. There is clearly a convergence of predeployment training activity during the D-111 to D-Day period, with the bulk of training beginning on D-105 for Rotation 28 and on D-111 for the AC unit. One slight difference here was that the AC unit needed to train the trainer (mostly squad leaders) on the MFO tasks for 5 days at the beginning of this period. Another substantial contrast was in the certification: namely, Rotation 28 was externally validated and the AC unit was internally validated. The AC unit succeeded in the certification exercise, but no specific data are available, as shown earlier in Table 8-5, on first attempt "GO" as a basis for a comparison to Rotation 28.

Table 8-6
Comparison of Predeployment Training Activities

Predeployment Period Unit	Rotation 28	Active Component
D-342 to D-258	Unit formation	No MFO activity
D-257 to D-164	IRR refresher (*n*=36)	Assigned MFO mission
	Train the trainer	(On D-186)
D-163 to D-112	ILC training (*n*=154)	Plan training (*n*=3)
		Ready Status
D-111 to D-Day	Soldiering tasks	Train the trainer
	Individual MFO tasks	Individual MFO tasks
	Specialty training	Specialty training
	Squad validation	Squad validation
	2-week block leave	2-week block leave

Job Knowledge Measure

A job knowledge test was constructed (cf. Reynolds & Campbell, Chapter 7) in conjunction with research on individual performance measures for the MFO mission. This instrument proved useful in measuring the knowledge acquired during the predeployment phase. It also allows for comparison to the knowledge of an AC unit deployed to the Sinai. The job knowledge test, consisting of questions related to either individual MFO tasks or individual soldiering tasks, was administered upon completion of the predeployment training. For our purposes, an analysis of 73 test items was conducted, 41 related to MFO-specific tasks and 32 related to general soldiering tasks (for the performance measure research, additional items were used for analysis which accounts for slight differences in means). The items, patterned after the Project A item pool (Campbell & Zook, 1991) were designed to be difficult, so the fact that the scores seem low is an indication of a difficult test rather than a reflection of inadequate levels of knowledge.

For members of the four line squads from Rotation 28, an average score of 67% correct on the MFO items and 57% of the soldiering items was achieved at the end of predeployment training. Although no

comparable administration, in terms of time relative to deployment, was given to an AC unit, the same knowledge test was administered to an AC unit toward the end of their Sinai deployment. It is important to note, in this case, that there could have been some decay of skills and knowledge since the predeployment training of the AC unit; however, given the fact that both MFO and soldiering skills were maintained during squad training at the remote sites, this decay is probably minimal. Table 8-7, then, presents a comparison of these two units. For the MFO tasks, there was a slight advantage for members of Rotation 28 (67% vs. 63%, t = 3.65, $p < .001$); for the soldiering tasks, there was no difference (57% vs. 56%, t = .34, ns). Since the test was administered at different times relative to the deployment date, a decisive conclusion cannot be drawn. It is probably safe, however, to say that Rotation 28 was as knowledgeable about MFO and soldiering tasks as was an AC unit.

Table 8-7

Comparison of Job Knowledge Test Results

	Percent correct	
Sample	MFO-tasks	Soldiering-tasks
Rotation 28 (n = 309) (end of predeployment training)	67%	57%
AC unit (n = 233) (near end of Sinai deployment)	63%	56%

On the basis of the results from the job knowledge test, as well as the certification exercise, soldiers from Rotation 28 appeared to be well trained for the Sinai deployment. It would be interesting to learn, then, how the soldiers judged the adequacy of their predeployment training and compare that judgement to an AC unit.

Soldier assessment of training. The adequacy of the predeployment training, from the soldiers' viewpoint, was accomplished through a pair of questions included in an ARI questionnaire related to leadership, motivation, and cohesion (cf. Siebold, Chapter 10). Soldiers from the

line squads of Rotation 28 and an AC unit were asked to rate the adequacy of training, in the months just prior to deployment, for both MFO tasks and soldiering tasks. For each group, the rating was done toward the end of their Sinai deployment, when they would best be able to reflect on the adequacy of training in light of their Sinai experience. As shown in Figure 8-2, about half of each group thought that there had been too much MFO training, and only about 15% thought there had been less MFO training than needed. The pattern of ratings on training adequacy for MFO tasks, then, shows no difference between groups (Chi-square test for independence, $\chi^2 = 0.43$, ns).

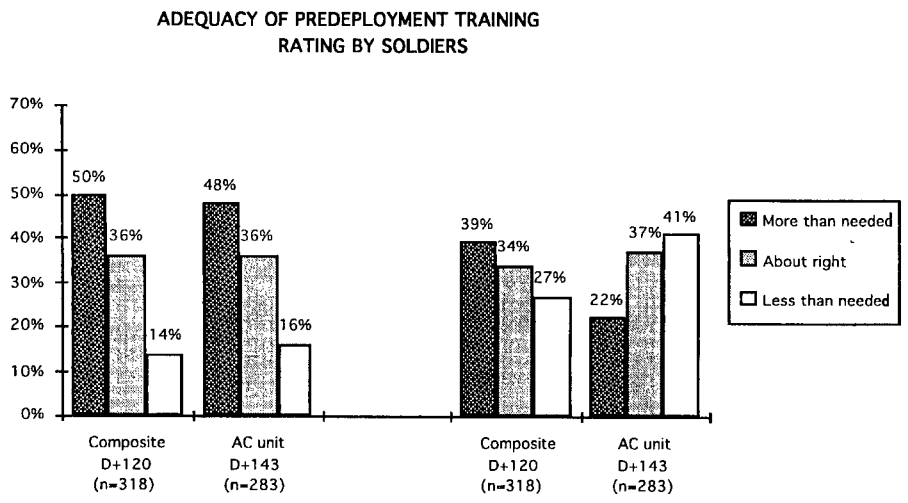

Figure 8-2. Soldier rating of predeployment training.

A much different story emerges for the soldiering tasks, as shown in Figure 8-2. Here, there is a distinct difference in the rating patterns between the two groups ($\chi^2 = 23.2$, $p < .001$). For Rotation 28, 39% believed that the training on soldiering tasks was more than needed; this compares to only 22% of the AC unit. One explanation for the difference can be the orientation by the AC unit of their usual warfighting mission, which, of course, demands a high level of proficiency in soldiering skills. Even a temporary departure from this orientation may have induced a perception of inadequacy by these soldiers. It should be noted that upon return from the Sinai, an AC rotation typically requires from 3 and up to

6 months of reorientation training to be mission ready, as described in the introduction to this chapter.

TRAINING WHILE DEPLOYED

During any unit's 6-month deployment to the Sinai, training continues on both MFO and soldiering tasks. This training is generally conducted by squad leaders at the remote sites during the typical 3-week rotation to their sites. After a squad completed this 3-week, remote-site rotation, it moved to South Camp where it had National Training for 1 week, 1 week of rest and recreation (R&R), and 1 week of serving on the perimeter defense at South Camp. It then rotated to its remote site for another 3-week period. Approximately 1 week out of 6, then, is available for squad- and platoon-level tasks with access to a small arms range.

The amount of training directed at collective, warfighting skills is necessarily restricted while soldiers are in the Sinai. This restriction is due not only to the lack of an adequate manuever area, the lack of time, and the demands of other duties, but also to an MFO requirement that U.S. forces not appear aggressive. For example, the attachment of laser-engagement simulators to weapons during the training of small-unit warfighting skills, a normal practice at home station that adds realism to the training, could not be used in the Sinai. As a result of this limitation, then, AC units must take the time to reorient to warfighting, particularly collective tasks, upon redeployment.

Training Patterns at Remote Sites

While deployed to the Sinai, squads assigned to the remote sites have the continuing requirement to train on individual tasks, both MFO-specific and soldiering tasks, generally at the call of the squad leader. Training on MFO-specific tasks, such as aircraft identification, use of Arabic phrases, and reading Egyptian license plates, begins during predeployment training and continues as refresher training during deployment to the Sinai. Training on soldiering tasks, such as installing mines and disassembling/assembling an M16 rifle, starts with entry into the Army and continues throughout a soldiers career, regardless of the assignment.

A peacekeeping assignment demands that the soldier perform a new set of tasks in addition to maintaining proficiency on previously learned soldiering skills. In the context of ARI's research on the unit assigned to the MFO Sinai, how the training on MFO and soldiering tasks are balanced within squads might have shown important differences between AC units and AC/RC composite units. An important consideration in deploying an active unit to a peacekeeping mission is the degree to which the individual's and unit's performance on mission-essential warfighting tasks degrade after a period of little or no use. As discussed in the introduction to this chapter, in anticipation of this skill degradation an AC unit could accelerate the inclusion of soldiering tasks into the training schedule, midway through a rotation. This shift would serve to prepare a unit for its subsequent warfighting mission. The situation is likely to be different for a composite unit. Such units could concentrate equally on MFO and soldiering tasks, since upon redeployment they would not regroup as a unit, let alone prepare, intact, for a warfighting mission.

A straightforward way to examine differences in training patterns between an AC unit and Rotation 28 was by tracking the daily training activities of squads working at the remote sites. Squad leaders were required to schedule daily training activities, which typically involve three or four individual tasks. This training reflects both the squad leader's sense of the tasks on which the squad needs training as well as training guidance from the unit's leadership. By categorizing the tasks selected for training as either MFO-specific or soldiering, the cumulative patterns of training could then be examined for trends within a rotation and, ultimately, between rotations. The training patterns for an AC unit will be described first followed by a comparison with Rotation 28.

Active component training. Special squad training booklets were developed by ARI and distributed to all squad leaders. Instructions on their use were given on the front page of the booklet. Six weeks into the rotation, ARI researchers met with each squad leader to encourage the accurate recording of daily training schedules. Separate books were used at remote sites and at South Camp. The 7-day training period at South Camp was generally devoted to training soldiering tasks, including squad-level drills.

The analyses described below are derived from the recording of 4,622 tasks trained at remote sites during the first 20 weeks of the

6-month rotation. Interestingly, the number of times that MFO tasks were trained, 2,301, nearly equaled the number of times soldiering tasks were trained, 2,321. Figure 8-3 charts these data in terms of tasks trained per day, beginning with D day (arrival in the Sinai) and incremented at 7-day intervals, so the D point on the abscissa represents training during the first week, D+7 represents training during the second week, etc.

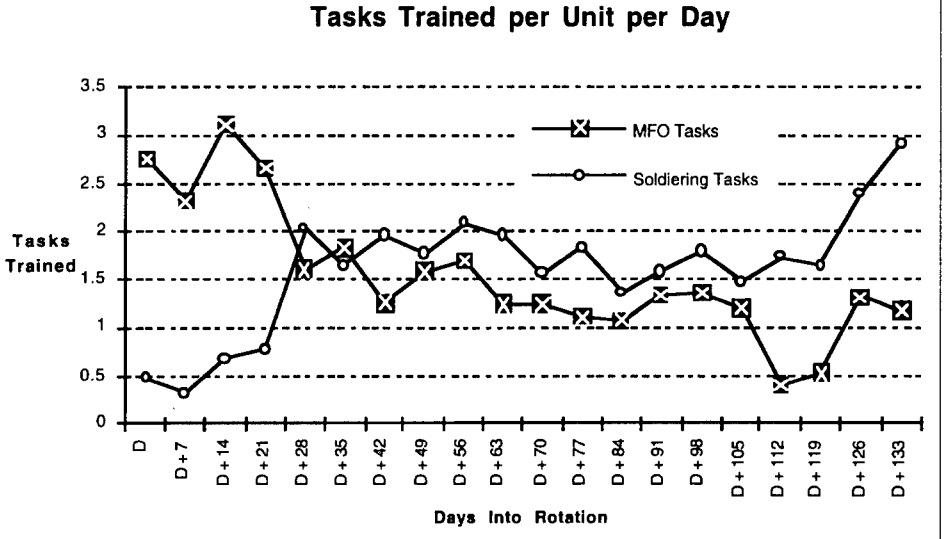

Figure 8-3. Tasks trained on daily basis - active component unit.

Each point in Figure 8-3 represents the average number of MFO or soldiering tasks trained during that week. Clearly, there is an emphasis on training MFO tasks during the first 4 weeks, then a convergence through D+105 (week 16), then a divergence toward soldiering tasks out to week D+133 (week 20), when data collection discontinued. Apparently, the AC unit was concentrating training time on the peacekeeping tasks early and then slowly shifted to soldiering tasks as they neared their redeployment date.

Comparison to Rotation 28. The same squad training booklets described earlier were provided to the squad leaders at the remote sites. Unfortunately, we were able to collect data only from D+35 through D+126, so our comparison is restricted to this period. The data obtained were sampled from the remote sites in about the same proportion from the three types of remote sites, sector control, observation post, and check

point, allowing an acceptable comparison to be made between the AC unit and Rotation 28.

The comparison data are presented in Figure 8-4. To illustrate an effect that we believe is revealing, the AC unit data from Figure 8-3 have been replotted in the following manner: rather than charting the number of MFO or soldiering tasks, we have combined those measures into a single measure. Specifically, we computed and plotted the proportion of tasks trained that were MFO, so if 80 MFO tasks and 20 soldiering were taught during a week, the value 80% was plotted. All available data points are plotted in Figure 8-4. A linear trend line (depicted as a dashed line) is superimposed over the data points for both Rotation 28 and the AC unit. The statistical analysis of these trends, however, was restricted to the D+35 through D+126 time period, since both units furnished data for comparison during this period.

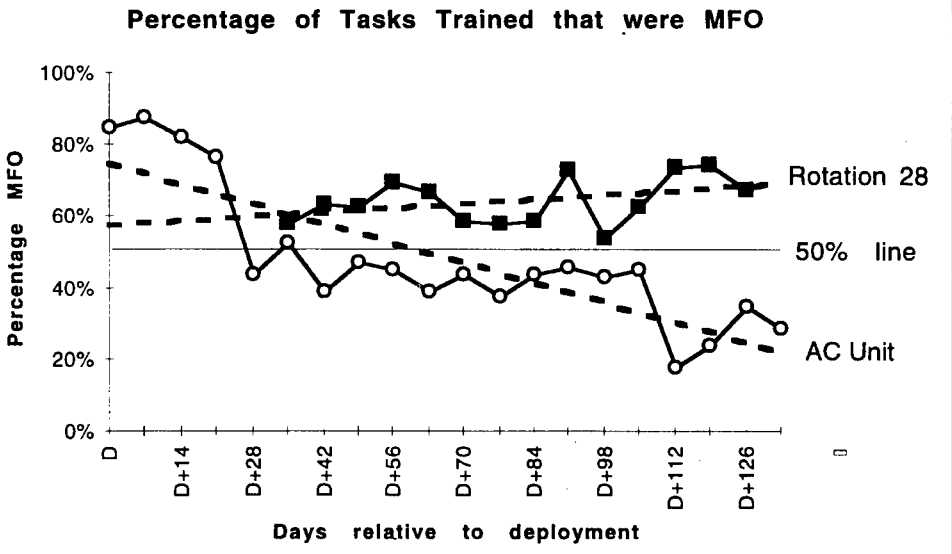

Figure 8-4. Trends in training MFO tasks at remote sites.

These data (D+35 through D+120) were analyzed through a moderated regression analysis with two variables (time and unit) and an interaction (time by unit). The first step of the regression shows that as time increases, there is not a significant relationship in the ratio of MFO tasks taken together (r = .35, p = .73). Step two of the regression shows

that there is a significant difference in the ratio of MFO tasks trained between the two units ($r = 7.26$, $p = .001$). Finally, the third step shows the interaction of time and unit to be significant ($r = 2.57$, $p = .02$), indicating that the slopes of patterns in training differ between the two units. This is graphically illustrated with the divergence of the linear trend lines (depicted as dashed lines in Figure 8-4). This, then, establishes that the training patterns at the remote sites does differ between the two units, with the AC favoring soldiering tasks, and increasingly so as the rotation progressed.

It should be noted that EIB testing was performed about 20 weeks into the rotation for both units. Preparation on soldiering tasks leading up to the test period can, in part, explain the training acceleration in those tasks for the AC unit. However, Rotation 28 also trained for the EIB at about the same time, so a comparison between rotations is valid. Also, much of the training for the EIB was conducted at South Camp, not the remote sites. The data in the analyses were from the remote sites only.

Patterns Between Remote Sites

There were three types of remote sites at which soldiers performed their duties to observe and report: sector control, observation posts, and check points. A classification of the same training data by site category is shown in Table 8-8.

Table 8-8
Proportion of Tasks Trained That Were MFO by Site Category

Site category	AC Unit	Rotation 28
Check Point	61%	78%
Sector Control	49%	66%
Observation Post	45%	56%

The pattern of these data seems to make sense. Since the check points have regular, daily contact with Egyptians, international tourists, and official visitors traveling through the sector, they should have the greatest need to maintain proficiency on MFO tasks, such as identifying license plates. This is the case for both the AC unit and Rotation 28, who

trained MFO tasks 61% and 78% of the time, respectively. The observation posts, on the other hand, have the greatest need to maintain soldiering skills since they are required to move about the sector (as a temporary observation post) and apply skills such as land navigation and first aid on a regular basis. This training pattern is evident in Table 8-8. By subtracting from 100% (since tasks were either MFO or soldiering), it can readily be determined that 55% (100%-45%) of the tasks trained by the AC unit and 44% (100%-56%) of the tasks trained by Rotation 28 were soldiering tasks, higher than the other two site categories. The frequency of training MFO tasks at the sector controls are in between for both units. As previously demonstrated in Figure 8-3, the AC unit emphasized soldiering tasks to a greater degree than Rotation 28. There was also a corresponding pattern between site categories.

As mentioned earlier in this chapter, the training plan called for three tiers of tasks. The first two were trained at Fort Bragg and were presented in Table 8-4. A third tier of tasks, related to EIB, was reserved for training while deployed to the Sinai. These tasks are listed in Table 8-9. Testing for the EIB occurred about two thirds of the way through the rotation.

There were two other sources of training and education in the Sinai in addition to that received at remote sites and during the National Training period. These were teletraining for more formal military instruction and educational opportunities available through the Army Continuing Education System. These are described below.

Teletraining

The Training and Doctrine Command (TRADOC) installed a satellite down-link and up-link capability at the South Camp Education Center. This communications link permitted, for the first time, a distance-learning classroom to be created in the Sinai. This classroom, featuring two-way video and two-way audio, tied into the Army's teletraining network (TNET). This unique opportunity allowed 84 soldiers to complete the Primary Leadership Development Course (PLDC), 5 to complete the Infantry Officers Basic Course, and 2 to complete the Infantry Officers Advanced Course (these data were as of mid-May when ARI last surveyed Rotation 28). These numbers are quite

Table 8-9

Soldiering Tasks Trained in the Sinai

Perform mouth to mouth resuscitation
Day land navigation
Night land navigation
12-mile foot march/weapon proficiency test
Move under direct fire
Estimate range
Prepare M47 dragon for firing
Challenge and password
Locate a target by shift from a known point
Call for/adjust indirect fire
Operate as a station in a radio net
Identify terrain features on a map
Employ hand grenades
Install/recover an M18A1 claymore mine
Administer nerve agent antidote to self
Report enemy information/SALUTE
Prepare an M136 AT-4 for firing
Perform misfire procedures on an M136 AT-4
W/in 5 min. disassemble M249 SAW into groups & components
W/in 4 min. assemble M249 SAW & perform function check
Load, correct a malfunction, and unload an M249 SAW
Put on field/pressure dressing, apply tourniquet, prevent shock
Put on, wear, remove, and store M17 protective mask w/hood
Decontaminate your skin and personal equipment
Camouflage yourself and your individual equipment
Determine enemy target location using grid coordinates
Load, reduce a stoppage, and clear an M16A2 rifle
Use visual signaling techniques - dismounted
Install/recover an M21 metallic antitank mine

impressive. Indeed, 16% of the junior enlisted had completed PLDC prior to reporting to Fort Bragg for predeployment training (Table 8-2). With

the distance-learning classroom opportunity, the percentage of PLDC qualified increased to 42%. A downside was that 66% had to sacrifice an R&R tour to complete the PLDC, which might have negatively affected moral.

Educational Activities

Opportunities to gain college credits were available to soldiers through various educational institutions. Lecture courses were available from Central Texas College for vocational-type courses and from the University of Maryland for general education courses. Video independent study was provided by City Colleges of Chicago. These college credits were made possible through classes at South Camp and self-study at the remote sites. All educational activities were administered through the Education Center located at South Camp. Because of the remote location of South Camp, faculty were recruited from the battalion. It was possible to earn up to 18 semester hours during a 6-month tour.

There is a 90% tuition assistance for enlisted soldiers, E5 and above with less than 14 years of service, and a 75% assistance for all other soldiers entitled to this benefit. Courses from Central Texas College, for example, cost $24.83 for soldiers entitled to the 90% assistance. Books were loaned, at no cost, from all schools except the University of Maryland, which required students to purchase textbooks.

An education statistics report from the Education Center indicated that 1,639 credits were earned by Rotation 28. Compared to other recent rotations, which had similar tuition assistance policies, this was about average. A possible explanation for participation not being higher is that the course offerings were almost entirely lower level courses, more appropriate for soldiers seeking an associates degree. As described in the demographics chapter (cf. Farr, Chapter 5), soldiers in Rotation 28 had higher educational levels than soldiers from a typical AC unit.

Physical Performance

The physical demands and performance of Army peacekeepers was of interest for several reasons. First, it gives us a good indication of general physical fitness within the Army. ARI has been examining issues

of physical fitness as it relates to job performance for a number of years (Brady & Rumsey, 1993; 1990). Another reason focuses on establishing a baseline for possible future comparisons with other peacekeeping missions. For example, the physical requirements for missions conducted in Somalia and Bosnia may be quite different from those for the Sinai.

The Physical Performance Questionnaire (PPQ) contains items dealing with issues such as upper body strength, endurance, physical training, and the most physically demanding tasks performed while in the Sinai. Table 8-10 shows the three tasks that require the greatest physical effort (Brady & Rumsey, 1995). Anything to do with sandbags was deemed to be the most physically demanding. This includes filling, lifting, or moving sandbags as well as building sandbag walls. Tasks related to Physical Training (PT), including regular PT in addition to PT runs and PT tests, were perceived to be the second most physically demanding. Training, which includes qualifying for the Expert Infantry Badge, Expert Field Medical Badge, and the Primary Leadership Development Course, was third.

Table 8-10

Tasks Listed as Most Physically Demanding

Task	Number Identifying Task
Sandbags	50
Filling	19
Lifting/moving	13
Sandbag walls	10
Sandbags - general	8
Physical Training	30
Regular PT	20
PT runs	6
PT tests	4
Training	28
Expert Infantry Badge	19
Expert Field Medical Badge	5
Primary Leadership Development Course	4

DISCUSSION AND CONCLUSIONS

At the request of the Deputy Assistant Secretary of Defense for Peacekeeping and Peace-Enforcement Policy, the Department of Defense Inspector General formed a study team to review specialized training for peace operations (DOD Inspector General, 1994). The study concluded that peace operations had different requirements for knowledge, skills, attitude, and environmental considerations than warfighting. The study endorsed the view that some type of preparation prior to deploying to a peace operation is necessary. Indeed, a recent report on preparations for the Bosnia deployment concluded that peacekeeping does require a train-up in the form of situational exercises for soldiers and leaders (Center for Army Lesssons Learned, 1993). Other analyses of preparation for peacekeeping concluded that specialized training to sensitize forces to local conditions, cultures, and laws before deployment was essential (Kahan, 1994). A more recent report on Operation Joint Endeavor (Wisher, Sabol, & Ozkaptan, 1996) advised on the importance of refresher training during peace operations, especially for critical tasks that are prone to rapid performance decay.

Training

From a purely training standpoint, the composite unit appeared to be as well prepared to execute the MFO mission as was a unit from the AC. Three analyses reported in this chapter support this conclusion. First, the predeployment training was clearly as extensive as that of an AC unit, as seen in the comparison between Rotation 28 and an AC unit's predeployment training schedule (Table 8-7). The certification exercise reflected the success of Rotation 28's training. Second, soldiers from both units agreed, in retrospect, that the mission-related MFO training was more than adequate for the operation (Figure 8-2). Furthermore, the training that was conducted in the Sinai continued to emphasize the MFO tasks for Rotation 28, so their preparedness on MFO tasks probably remained at a high level. Third, Rotation 28's level of knowledge related to individual MFO and soldiering tasks remained comparable to that of an AC unit throughout the rotation. Taken together, these findings indicate that a unit composed primarily of reserve volunteers can acquire and maintain the skills and knowledge necessary for the Sinai mission.

At the same time, the Inspector General study (DOD Inspector General, 1994) also concluded that a well-trained, disciplined force was a fundamental prerequisite for conducting peace operations, since peace operations span the operational continuum from limited combat to a stable peace environment. Factors related to this issue, however, could not be addressed directly by our study. Specifically, we were unable to examine the preparedness of squads or platoons to perform collective tasks in the Sinai, such as defensive or manuever tasks that might be required in reacting to a hostile event. Although the need for such a response has been very limited throughout the history of U.S. participation in the MFO Task Force, a unit's ability to respond effectively can be of critical importance. It is debatable whether squads from an AC unit are better able to execute collective tasks than a newly formed RC unit. What is known, however, is that a long-established tenet in human learning, the Law of Use, would favor an AC squad which had been performing these tasks for longer periods. Clearly, Rotation 28 placed a greater emphasis on sustaining skills and knowledge related to the MFO tasks, but we cannot interpret this as affecting preparedness of the unit's ability to respond to a potential hostile event.

Conversely, the AC unit had a clear trend toward favoring soldiering tasks in their training while in the Sinai. The concentrated training of MFO tasks for the first 4 weeks of the rotation (see Figure 8-4), coupled with the perception that the MFO training was more than adequate during the predeployment training phase (Figure 8-2), might have been sufficient for the AC unit to execute the mission. Although they continued to sustain MFO tasks, through training and of course through job use, the AC unit favored the training of soldiering tasks toward the end of the 6-month rotation. The EIB test, which consists of soldiering tasks only, was conducted late in the rotation, but the same was true for Rotation 28. What is important here is the relative pattern: as time progressed, the trend of Rotation 28 was to remain at a steady ratio of MFO to soldiering tasks while the diverging trend of the AC unit was to emphasize, in increasing measure, soldiering tasks. This observed pattern is consistent with the findings reported in the Reynolds and Campbell chapter in Section 3 (Chapter 7). They reported that for performance rating purposes within Rotation 28, NCOs from the RC placed more emphasis on the features of the mission that are unique to MFO peacekeeping than did the AC NCOs.

Thus, the "tiger versus pussycat" phenomenon emerges. The DOD Inspector General (1994) study identified the MFO Sinai as a long-term, continuing mission that can be planned for in advance. With over 30 rotations completed, we have a better understanding of how to balance the "tiger versus pussycat" paradox for units undertaking the MFO Sinai mission. Knowing that balance can lead to more efficient training of reserve units for future peace operations without reducing the readiness of a "tiger" unit drawn from the AC. An example of this can be seen in a statement by the Assistant Secretary of Defense for Reserve Affairs, in a recent interview on Operation Joint Endeavor. Responding to a question on how well reservists are fitting into peace operations in Bosnia: "The reports I get from the field are that the commanders have no idea who's active and who's reserve in most cases ... they are doing exactly the job that we want them to do and that we've trained them to do" (Steele, 1996).

Readiness

As indicated in the introduction to this chapter, an inherent drawback to deploying AC units to any peacekeeping environment is the potential reduction in readiness of the parent brigade. For the Sinai mission, this reduction extends for at least 1 year. Our data indicate that not only does an AC unit view their predeployment training of soldiering tasks as being less than needed (41% vs. 27% for Rotation 28, see Figure 8-2) they also lean toward soldiering tasks as the mission progresses. Perhaps the unit leadership is more sympathetic to their primary mission as warfighters rather than their temporary mission as peacekeepers. This argument would not extend to a specially formed unit of reserve volunteers, who disperse to many different units upon redeployment.

Related to this issue is the nagging question regarding the immediate deployability of reserve units to combat missions. For example, in a survey given to over 12,000 reservists shortly after Operation Desert Storm, soldiers reported shortcomings in individual job skill and combat preparation as these related to warfighting missions (Griffith, 1995). In the same study, Griffith concluded that findings in the areas of individual skill preparation and collective training raise questions about the reserve soldier's availability for immediate deployment. As reported in Salter et al., Chapter 9 in Section 3 of this volume, many more RC soldiers

self-reported being less prepared to train collective infantry tasks than their AC counterparts within Rotation 28. AC units have a known strength for a warfighting mission. It makes sense to preserve this readiness strength by redirecting RC assets to missions that they can accomplish successfully. Such a policy makes even more sense if the RC unit is drawn from volunteers from many units, which further should reduce the erosion in readiness of any individual unit.

RECOMMENDATIONS

The following recommendations are made:

1. A unit derived from reserve volunteers is a viable alternative to an AC unit. Not only can the volunteers do the job, but an AC unit, which might otherwise deploy, could maintain readiness for a warfighting mission. Future deployments to the MFO Sinai mission should include units drawn from reserve volunteers.

2. The predeployment prepartion time for a reserve volunteer unit could be reduced by several weeks, particularly during Phase II. The ILC portion, for example, might be reduced by at least 1 week, or even replaced by an externally conducted "train-the-trainer" event.

3. There should be some revision to the content of the training. Since the leadership cadre believed they were not getting sufficient MFO training early in the predeployment phase, they should be provided with a "big picture" overview of the MFO mission. For example, the use of preconceived, staff sychronization training exercises (e.g., JANUS) to rehearse the command and control of the observe and report function would help form an early mental model of the mission in which subsequent MFO tasks could then be readily integrated.

4. The IRR refresher training should be eliminated, as only 28% of those attending the training joined Rotation 28. Also, the training provided was redundant with that received at Fort Bragg during Phase III.

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9

PREDEPLOYMENT TRAINING AT THE INFANTRY LEADERS COURSE

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INTRODUCTION

The senior leaders, both officers and noncommissioned officers (NCOs), of the newly constituted Multinational Force and Observers (MFO) Rotation 28 deployed from Fort Bragg, NC, to attend the Infantry Leaders Course (ILC) at Fort Benning, GA, from August 26 through September 23, 1994. This unit was specially formed as a composite of Active Component (AC) and Reserve Component (RC) soldiers to serve as the 28th Rotation of the MFO Task Force assigned to the Sinai. The ILC was the initial leadership training event for the leaders of this battalion and provided their first opportunity to function as a group. The ILC occurred during the second phase of predeployment training as discussed in Wisher and Farr, Chapter 8. It was intended to prepare the Rotation 28 leaders to conduct training for their troops later at Fort Bragg. Further training with the battalion's enlisted soldiers occurred between October and December 1994.

The Infantry Leaders Course

The ILC focuses on infantry doctrine and tactics and collective infantry skills. It is a "train-the-trainer" course offered by the elite

Ranger Training Brigade (RTB) at Fort Benning. The ILC's three primary stated purposes are: (1) to ensure that personnel are trained on current squad/platoon-level collective task doctrinal standards; (2) to ensure that leaders are ready to conduct training to standard in their units; and (3) to promote teamwork and cohesion through shared common experiences. (Full information on the course is found in the U.S. Army Infantry School Department of the Army (DA) Pamphlet SH 21-75-7, 1993.)

The ILC is available for Light and Mechanized Infantry units and other selected agencies. Initial contact between the ILC and the unit is made about 6 months prior to the start of the course. The unit provides the ILC with its Mission Essential Task List (METL), and the ILC and the unit jointly develop a tentative training schedule. The training schedule is finalized, with equipment and resources requested 12-14 weeks prior to the start of the course.

Training is based on a 28-day cycle at Fort Benning. However, units have the option of decreasing the duration of the course or even requesting a mobile training team to teach the course at home station. The average training day is 12 hours, usually 7 days a week. The emphasis throughout is on developing each student's ability to teach soldiers infantry skills. The course presumes that soldiers are proficient in the tasks appropriate to their rank and military occupational specialty (MOS), and that all personnel, regardless of rank, will participate in every training event.

Normally, course capacity is 104 personnel. Suggested attendees are the battalion commander, 3 line company commanders, 9 platoon leaders, 9 platoon sergeants, 27 squad leaders, and 54 team leaders. All personnel attending hold at least the rank of sergeant (E-5).

The key focus of the course is dismounted small-unit (squad and platoon) infantry tactics. The battalion selects the contents of the program of instruction (POI) based on its METL, training status, and any special needs. Training options are based on the seven infantry squad and platoon missions detailed in the platoon's mission training plan (MTP) (DA, 1988a) (movement to contact, attack, raid, ambush, reconnaissance & surveillance, defend, retrograde). Collective tasks and battle drills are also available. Field Manual (FM)7-8 (DA, 1992)

provides details on doctrine, tactics, techniques, and procedures for infantry rifle platoons and squads.

Special skills training is offered. It includes such subjects as land navigation, aeromedical evacuation, training (how to develop a training plan), and training the trainer (how to execute training). The collective tasks and drills are combined into Situational Training Exercises (STXs) and Field Training Exercises (FTXs); the specifics are at the discretion of the unit.

Training is conducted based on the Army's "crawl, walk, run" philosophy. Initial training (learning the tasks) is followed by refresher training (training to standard) and finally, sustainment training (training with realism) (DA, 1988b; DA, 1990). All training events are followed by after action reviews (AARs) (DA, 1991).

Central to the bonding and cohesion portions of the course is the selection of activities from team building exercises. These include the Camp Darby Confidence Course (obstacles); the Water Confidence Course at Victory Pond (physical challenge above water hazard); the Leadership Reaction Course (small-group problem solving); rappelling (tower and helicopter); hand-to-hand combat; student-led instruction; and bayonet/pugil stick training.

Purpose of the Research

This chapter documents the training that took place while the leadership elements of Rotation 28 were at the ILC. It also answers several questions related to the effectiveness and efficiency of the ILC as a training event for an MFO task force. Three questions were addressed: (1) Did the ILC accomplish its training mission—i.e., were the leaders trained to standard and prepared to conduct training? (2) Did the leaders bond and become cohesive? and (3) Is the ILC the best place to train for the MFO?

METHOD

Four U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) researchers based at Fort Benning collected data designed

to answer the overall research questions listed above. Information was gathered via written questionnaires, interviews, and training observations. The approaches and data sources are detailed below.

Subjects

The 154 personnel who attended the ILC comprised 74 AC and 80 RC soldiers. The RC included 74 National Guardsmen, 5 Army Reservists, and 1 officer from the Individual Ready Reserve (IRR). There were 11 AC officers, 11 RC officers, and 132 NCO and enlisted personnel (63 from the AC and 69 from the RC). A few of the original personnel arrived too late for the start of the course and some departed before it ended.

Materials

Past experience and Rotation 28 preparedness. Several survey instruments were designed to elicit self-assessment of readiness, leadership qualities, and course expectations. The experience survey provided demographic information on the soldiers' AC or RC status, their Combat Training Center (CTC) experience, and their Army and professional development training. The purpose of this instrument was to identify variations in training experience within the battalion leadership.

The pretraining questionnaire (i.e., the MFO Unit Preparedness Survey) asked them to rate themselves on how prepared they were to train 17 specific collective tasks (e.g., Disengage, Defend, Cross Danger Area, Reconnoiter Route, Occupy Observation Post) and 11 battle drills, special skills, and individual tasks (e.g., React to Ambush, Land Navigation, Aeromedical Evacuation). A second section asked them to assess which of their leadership skills needed improvement; the next part asked them to rate their new immediate supervisor in some broad areas of leadership (e.g., Planning, Supervision).

The final sections asked them to rate their confidence in the ILC's ability to prepare them to train their subordinates. It also asked whether they felt confidence, before the course, in their ability to develop and execute unit training plans. The last question asked respondents what they expected the ILC course to do for them and their specific unit element.

Prior MFO rotation. The 19 officers and NCOs of Rotation 28 who had been on previous MFO missions with other units completed a questionnaire on their prior training. The first portion of this survey asked about their former duties in the Sinai, their workload, and their free time activities. These soldiers also described the training their earlier units had prior to departing for the Sinai and what tasks they wished they had spent more time on.

The second portion of the Prior Rotation Questionnaire focused on the soldiers' present situation, including how much MFO-specific training they remembered from the earlier rotation. They were asked whether they thought MFO units need courses like the ILC in order to prepare for deployment. They were also asked whether the ILC was the proper course and whether they perceived any specific problems attributable to the use of a volunteer task force rather than a command-selected standard battalion. These questions, all open ended, were designed to elicit "lessons learned" from previous rotations.

ILC posttraining: End of course. At the conclusion of the course, the leaders completed a questionnaire to assess their current levels of performance and any changes resulting from their training. They were asked to rate their confidence in their ability to develop and execute training, and what other tasks should have been included in the POI for the ILC. They rated the ILC course on how well it prepared them to train other soldiers and how much it succeeded in promoting bonding within the unit. The soldiers also listed course strengths and weaknesses. The final questions repeated the leadership questions that were in the original survey in order to determine self-perceptions of leadership growth.

ILC posttraining: During deployment. The final instrument administered to Rotation 28 soldiers was during their Sinai mission, about 5 weeks into the deployment (i.e., 5 months after the ILC). The intent of the questionnaire was to see the extent to which perceptions had changed over time.

Assessment by the ILC Ranger Instructors. Another source of data was a survey administered to the Fort Benning ILC cadre 2 months after the Rotation 28 training. They were asked for an overall assessment of the unit in comparison to other battalions and for their opinions on how

the course should have been conducted or might be used for future MFO rotations.

Procedures

Ranger Instructors. Before the 28th Rotation leaders arrived at the ILC to begin their training, the Ranger Instructors (RIs) from the RTB and staff met as a group with ARI to discuss the overall MFO mission. The discussion also covered typical ILC POIs, procedures, and outcomes. During this time, the RIs learned about the events ARI was interested in observing and the kinds of information we sought. We stressed the importance of the individual cadre observations and opinions, as well as the need for candor.

This group-interview procedure was repeated at the end of the course as an AAR. It was deliberately kept very informal to elicit as much information as possible from the cadre. For some of the instructors, this ILC had been their first. Others had been RIs for several years and had a great deal of information to use as a basis of comparison. All spoke at length and contributed to the overall discussion. Generally, they were in complete agreement with each other on the issues.

MFO questionnaires. Procedures for the administration of surveys varied. On the afternoon that Rotation 28 leaders arrived at Fort Benning, they were given the surveys related to experience and pretraining. The soldiers were in one large group, with four ARI personnel present. We introduced ourselves and explained our role in their training experience. We explained that we would be present every day, would ask specific questions, and would welcome any comments or questions from them. As with the cadre, we stressed the importance of candor and assured them that every soldier's opinion was of value.

For the Prior MFO Rotation survey, the respondents answered the questions at their own convenience and returned them to ARI when finished—typically 3 days later. The instructions stressed that they were to take their time in responding. The posttraining survey was planned for group administration by ARI; but, because the battalion schedule changed, staff personnel distributed and collected the survey. The Sinai questionnaire was administered on site by ARI personnel.

Training observations. ARI researchers observed the leader training throughout the entire 4-week period. We saw both classroom and field events and watched the group begin to take shape over time. By our nearly constant attendance during training (including road marches and evening/weekend classes), we gained the confidence of the leaders. They spoke candidly about their concerns and impressions. These findings, although less rigorous and systematic than the questionnaires, provided excellent information and served as validation of the questionnaire data.

RESULTS AND DISCUSSION

The training of the MFO composite battalion at ILC differed in many ways from that of the typical battalion. The tasks selected were quite different from those of most light infantry battalions. The mixture of AC and RC soldiers posed a potential problem; however, the *newness* of the battalion turned out to be even more critical. Since the unit had no history, no overall training status could be determined in advance. The effects of these and other issues will be detailed below. The questionnaire data are reported first, followed by the training observations. The overall questions that guided the research are addressed in the Conclusions section.

Questionnaire Data

Experience survey and demographic data. The brief demographic questionnaire provided information on student background and experience. Of the MFO leaders (N=154) who responded, 74 were AC soldiers (11 officers and 63 NCOs). The remaining 80 were RC (74 Army National Guard [ARNG], 6 Army Reserve). Of the RC, 11 were officers and 69 NCOs. Although there were some officers in the group with prior enlisted service and one NCO who had been an officer, data for this and all other surveys were tabulated according to the respondents' present status. Also, because there were a large number of National Guardsmen with prior active duty service, it was impossible to verify when (or in what capacity) they attended specific schools. Table 9-1 shows advanced military education.

Table 9-1
Number of Soldiers Reporting Attendance at Officer/NCO Courses *

	Active Component		Reserve Component	
Respondents	Officer	NCO	Officer	NCO
Total	11	63	11	69
Ranger	9	12	4	1
Airborne	11	54	6	14
Air Assault	3	34	7	21
Combat Life Saver	1	29	2	9
PLDC*	0	59	0	61
BNCOC*	0	34	0	33
ANCOC*	0	10	0	12
OBC*	11	0	11	0
OAC*	4	0	1	0

Note. *Primary Leadership Development Course (PLDC), Basic and Advanced Noncommissioned Officers Course (BNCOC and ANCOC),Officer Basic and Advanced Course (OBC and OAC).

The CTC experience was somewhat greater for the AC soldiers (see Table 9-2). The relatively high RC attendance probably reflects the high number with prior active duty service. The low percentage for officers may reflect the fact that 14 of the 22 were lieutenants who may not have been in service long enough to have had a CTC opportunity. Of the 154 respondents, some had been to only one CTC and others to several; 31 had been to none.

MFO unit preparedness survey results. The pretraining survey documented the MFO task force's precourse preparedness to train specific tasks. The leaders were asked to rate each of the collective tasks, drills, and individual-specialty tasks according to whether they felt *very well prepared, prepared, somewhat prepared*, or *not prepared* to train those tasks before the start of the course. Table 9-3 shows percentages of the AC and RC officers and NCOs who considered themselves either *prepared* or *very well prepared* to train 17 collective tasks prior to ILC.

No AC officers, and very few AC NCOs, reported being unprepared in any category. Although there were AC soldiers (both officers and

Table 9-2

Numbers and Percentages of Soldiers Reporting Experience at Each of the Combat Training Centers

	Active Component				Reserve Component				Total	
	Officer		NCO		Officer		NCO			
CTC	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
JRTC	6	55	*50*	79	4	45	35	51	96	62
NTC	3	27	34	54	1	9	24	35	62	40
CMTC	1	9	10	16	2	18	4	6	17	11
Any CTC	7	64	59	94	7	64	*50*	72	123	80
None	4	36	4	6	4	36	19	28	31	20

Note. JRTC, the Joint Readiness Training Center, for light infantry, is located at Fort Polk, LA; NTC, the National Training Center, for armored/mechanized units, at Fort Irwin, CA; the CMTC, Combat Maneuver Training Center, for armored/mechanized units, at Hohenfels, Germany.

NCOs) who admitted being only somewhat prepared to train some tasks, many more RC perceived themselves to be less than prepared. Similarly, a larger percentage of the AC soldiers rated themselves as very well prepared overall.

There were, however, differences between tasks. For example, every respondent rated himself as at least *somewhat prepared* to train the task Move Tactically; no one claimed to be *not prepared.* In contrast, for the task Cross Defile more than 25% of the NCOs, both AC and RC, rated themselves *not prepared.* Besides Cross Defile, only three tasks (Disengage, Perform Linkup, and Reconnoiter Route) had less than half of the respondents rate themselves as either *prepared* or *very well prepared,* and all of these were RC NCOs.

This means that prior to the start of the course, more than half of all personnel thought they were *already* prepared to train other people on the subjects they were about to be trained on. Even though there was no way to measure the accuracy of these self-perceptions, their impact cannot be

Table 9-3

Collective Tasks: Percent Rating Themselves as Very Well Prepared or Prepared to Train Their Soldiers to Standard

	Active Component		Reserve Component	
	Officer	NCO	Officer	NCO
Disengage	82	55	79	48
Hasty ambush	100	73	84	56
Point ambush	91	63	87	53
Defend	100	73	85	55
Occupy assembly area	82	73	83	67
Move tactically	100	73	94	80
Cross danger area	91	72	92	74
Occupy ORP	91	82	84	66
Occupy patrol base	100	82	84	66
Linkup	72	55	68	36
Cross defile	45	46	53	20
Recon zone	100	64	70	51
Recon route	100	63	75	47
Occupy OP	100	64	82	64
Surveillance	82	55	80	52
Prepare for combat	91	82	88	72
Consolidate/reorganize	90	54	83	67

Note. ORP (Objective Rally Point); OP (Observation Post).

ignored. Many felt that what they should have been receiving was training in the MFO tasks which they did *not* know. The mismatch between perceived needs and course expectations and the actual conduct

and content of the course continued throughout the duration of the ILC experience.

For the four battle drills polled, AC respondents were very confident in their ability to conduct training; 87% of all respondents rated themselves as *prepared* or *very well prepared* on React to Contact and Break Contact, and React to Ambush, and React to Indirect Fire (see Table 9-4). For the RC soldiers, the highest percentage for any drill was 81%.

The overall pattern of AC being more likely to rate themselves better prepared than RC continued for the other tasks and skills. The only exception was the task Pathfinder Operations where very few of any group felt prepared to train to standard—not surprising given the small number of personnel who had attended Pathfinder School.

Other questions covered leadership. Generally, the AC soldiers rated themselves less in need of improvement than the RC did, but differences were small, except in self-perceptions of tactical proficiency. The soldiers were also asked to rate the leadership skills of their immediate superiors. Generally, most respondents were fairly favorable, with the RC slightly more so than the AC. At the start of the course, these ratings were given with the knowledge that most personnel did not really know their superiors; they were taken as a rough baseline, to assess the changes over time.

Three questions asked the soldiers to rate their confidence before the ILC in their ability to develop and execute training plans. It also asked them to rate their confidence in the ability of ILC to prepare them to train their subordinates. Percentages are shown in Table 9-5.

Generally, the AC soldiers had less confidence in the ILC's ability to meet their needs than did the RC. The RC soldiers were also less confident in their own precourse ability to develop and execute training. Many NCOs, both AC and RC, admitted to not being overly confident in their ability to execute training.

The final question asked the leaders what they expected from the course, given their unique mission and make up of the unit. The question was open ended; some did not answer, others responded more than once. Responses clustered in five broad categories. One was bonding, cohesion

Table 9-4

Battle Drills, Special Skills, Individual Tasks: Percent Rating Themselves as Very Well Prepared or Prepared to Train Their Soldiers to Standard

	Active Component		Reserve Component	
Tasks	Officer	NCO	Officer	NCO
React to contact	91	94	64	71
Break contact	91	89	64	66
React to ambush	91	87	73	65
React to indirect fire	91	95	73	81
Leader reconnaissance	91	76	64	57
Land navigation	91	95	64	72
Construct fighting positions	91	89	73	68
Aeromedical evacuation	91	52	55	24
Pathfinder operations	36	33	46	12
Unaided night vision	55	68	50	34
Report enemy information	100	94	73	78

and team building; it was the item most stressed by the battalion commander. Another category focused on assessment of unit strengths and weaknesses. A third response category highlighted specific skills and refresher training. A fourth category covered troop leading procedures (TLPs). The fifth category was one of negative responses (i.e., soldiers who replied "nothing" or "not much").

Percentages are shown in Table 9-6. Second responses (if any) are shown in parentheses. Differences in expectations appeared to be greater between officers and NCOs than between AC and RC soldiers; as before, though, both RC officers and NCOs were highly focused on refresher training and TLPs.

Table 9-5

Soldier Confidence Ratings of Ability to Train (Percentages)

	Active Component		Reserve Component	
	Officer	NCO	Officer	NCO
Can develop training now				
Extremely confident	46	10	36	6
Very confident	46	36	9	20
Fairly confident	9	24	36	36
Somewhat confident	0	20	9	25
Not very confident	0	10	9	13
Can execute training now				
Extremely confident	36	18	9	6
Very confident	27	31	36	29
Fairly confident	36	26	27	36
Somewhat confident	0	16	18	17
Not very confident	0	8	9	12
ILC will prepare me to train				
Extremely confident	9	19	46	18
Very confident	64	39	46	60
Fairly confident	27	25	9	21
Somewhat confident	0	10	0	0
Not very confident	0	7	0	2

Prior MFO experience. Three officers and 16 NCOs had been on one prior MFO mission, and 2 had been twice before. Ten were volunteers for this rotation, nine were not. They were asked to look back at their earlier rotation (for some this was only 6 months prior; for others it was nearly 10 years). They answered questions based on their experiences and said that they remembered most of the MFO précis items (reports, identification), but 15 admitted that they needed/desired refresher training.

Table 9-6

Percent of Soldiers Reporting Specific Expectations From the ILC: First and (Second) Responses

	Active Component		Reserve Component	
	Officer	NCO	Officer	NCO
Bonding	55 (25)	22 (21)	10 (50)	17 (21)
Assessment	0 (25)	16 (16)	0 (0)	6 (0)
Skills	27 (13)	31 (26)	60 (0)	35 (38)
TLPs	18 (38)	17 (32)	30 (50)	37 (38)
Not much	0 (0)	14 (5)	0 (0)	5 (4)

When asked to respond to a question about train-up tasks other than the MFO tasks their prior unit had used, 11 of the 19 reported those MFO tasks anyway. Others mentioned common task training. There was little consensus on this question or on another one which asked what they wished they had spent more time on. They were asked to use their experience to determine what most units need to train on, *other than MFO tasks*. Eight *again* cited the need for MFO tasks. Those who had already been on the mission continued to emphasize MFO tasks (e.g., vehicle, aircraft, and license ID; first aid because of civilian accidents). This intensified feelings that the ILC was not focused on the right tasks. Two soldiers specifically mentioned Arabic language training as something that was lacking.

One vital question asked whether MFO battalions need the ILC, or at least something like the ILC. Nine said yes, they needed something like the ILC; six said no; the other four hedged by responding both yes and no. Fifteen indicated that something else (i.e., not ILC) would have been useful; nine thought that tasks from the long-range surveillance course might have been beneficial.

Asked what problems they perceived as coming from the use of a volunteer force, nine said none and five focused on uneven ability levels. Another five mentioned problems resulting from the fact that it was possible to volunteer for the wrong reasons, or that RC personnel were

able to change their minds after they had started. On the other hand, asked about the benefits of using volunteers, 15 commented on the high level of motivation. Eleven felt that unit cohesion could easily be developed under the present circumstances; five said no, and three were unsure. One said "I wish we had more than one month." Ten said that cohesion was never a problem to begin with.

The parts of the ILC perceived to be worst were the confusion created by the mission, and some chain-of-command issues. Leaders also commented on the hardship of being away from their families. The best part of the deployment was the training itself, or opportunities for "travel and culture." Some mentioned the potential for personal growth, getting to know other people(s), or belonging to a good squad or team.

Asked whether the MFO mission should be conducted by AC units, RC units, or a mixture, 11 opted for the composite unit. Six added that such a mixture would benefit both RC and AC. In response to the final question, which invited overall comments about the MFO mission, nine volunteered that the MFO is a good mission ("Great tour but not to be taken lightly"). One suggested that it be made a 1-year tour.

ILC posttraining: End of course. The posttraining survey was administered on the final day of training. Of the original 154 soldiers, 147 responded to this questionnaire, 70 from the AC and 77 from the RC. Missing were two officers (AC) and five NCOs (two AC and three RC). There is a need to be cautious in interpreting these data because all personnel were eager to get home, and were thus poorly motivated to answer questions about the ILC.

Highlights of the survey are detailed in Table 9-7. The first two questions paralleled the pretraining survey in asking how confident respondents were in their ability to develop and execute training plans. Table 9-7 shows the number and percentages of respondents who selected each confidence level.

A primary purpose of the course was to enhance the soldiers' ability to develop and execute training plans. Both AC and RC described themselves as *very* or *extremely confident* that they could develop (AC 84%, RC 70%) and execute (AC 84%, RC 72%) training plans for their units.

Table 9-7

Soldiers Confidence in Their Abilities After the ILC

	Active Component				Reserve Component			
	Officer		NCO		Officer		NCO	
	n	%	*n*	%	*n*	%	*n*	%
Develop training plans								
Extremely confident	6	75	23	41	3	27	12	19
Very confident	1	13	24	43	3	27	34	54
Fairly confident	0	0	9	16	2	18	12	19
Somewhat confident	1	13	0	0	1	9	4	6
Not very confident	0	0	0	0	2	18	1	2
Execute training plans								
Extremely confident	7	88	24	43	3	27	17	27
Very confident	1	13	22	39	3	27	30	48
Fairly confident	0	0	8	14	2	18	11	17
Somewhat confident	0	0	2	4	1	9	3	5
Not very confident	0	0	0	0	2	18	2	3

Direct comparisons of these results with the pretraining ratings indicates that most overall confidence ratings appear to have increased after the course. Table 9-8 shows the comparisons. NCO shifts toward greater confidence over time indicate that the course, despite its difficulties, had the desired effect upon those who were actually going to be responsible for daily training.

Many soldiers did not respond to an open-ended question that asked which other specialized skills or tasks should have been included in the ILC POI. The responses of those who did reply clustered into five categories: MFO tasks in general (39); specific MFO tasks (20); other 11-series tasks (11); troop leading procedures (5); and bad-attitude responses (4). Focus on MFO tasks remained strong. One soldier volunteered "I don't think ILC was suited to our unit's mission. We have

Table 9-8
Comparison of Pretraining and Posttraining Confidence Ratings
(Percentages)

	Active Component				Reserve Component			
	Officer		NCO		Officer		NCO	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Develop training								
Extremely confident	46	75	10	41	36	27	6	9
Very confident	46	13	36	43	9	27	20	54
Fairly confident	9	0	24	16	36	18	36	19
Somewhat confident	0	13	20	0	9	9	25	6
Not very confident	0	0	10	0	9	18	3	2
Execute training								
Extremely confident	36	88	18	43	9	27	6	27
Very confident	27	13	31	39	36	27	29	48
Fairly confident	36	0	26	14	27	18	36	17
Somewhat confident	0	0	16	4	18	9	17	5
Not very confident	0	0	8	0	9	18	12	3

one week until our soldiers arrive. We need to be studying and having classes on our MFO précis..."

The next few questions asked how well the ILC prepared the unit to train to standard and promote bonding. The ratings are shown in Table 9-9. Approximately half (48% to 58% of each group) thought the course was *effective* or *very effective* in preparing them to train. More officers (AC 77% and RC 81%) than NCOs (AC 48% and RC 58%) thought it was *effective* or *very effective for* bonding.

Another question asked how useful they felt the ILC had been in preparing units like theirs for MFO missions. Only 22% of the AC officers and 40% of the RC officers thought that the ILC could be rated *very useful* or better. The NCOs (AC 25% and RC 23%) were similarly unconvinced. The high percentages for *not very useful* or *not at all useful*

Table 9-9

Rating of Course Effectiveness and Usefulness

	Active Component				Reseve Component			
	Officer		NCO		Officer		NCO	
	n	%	*n*	%	*n*	%	*n*	%
Prepare to train								
Very effective	1	13	8	13	0	0	10	15
Effective	3	38	26	44	6	55	28	43
Somewhat effective	2	25	13	22	3	27	22	34
Somewhat ineffective	2	25	6	10	0	0	4	6
Ineffective	0	0	4	7	0	0	1	2
Very ineffective	0	0	2	3	2	18	0	0
Promote bonding								
Very effective	3	33	14	23	4	36	17	26
Effective	4	44	15	25	5	45	21	32
Somewhat effective	2	22	21	34	2	18	20	30
Somewhat ineffective	0	0	2	3	0	0	2	3
Ineffective	0	0	4	7	0	0	4	6
Very ineffective	0	0	5	8	0	0	2	3
Preparing for MFO Missions								
Extremely useful	1	11	5	8	1	10	3	5
Very useful	1	11	10	17	3	30	12	18
Somewhat useful	6	67	19	32	2	20	31	47
Not very useful	0	0	16	27	3	30	16	24
Not useful at all	1	11	9	15	1	10	4	6

most likely reflect the mismatch between perceived needs and course content for this particular battalion.

Table 9-10 shows number and percentage of responses to the question "Should the ILC continue to be used to train MFO Battalions like yours for future rotations?"

In explaining their ratings, most soldiers who were positive noted that the ILC and the RIs are the standards; i.e., the best of infantry training, but that any training would be of benefit. Others mentioned the

teamwork opportunities fostered by the environment. Those who were not in favor of the course focused on the lack of MFO-specific classes. They believed that a Fort Bragg-based course (specifically the Airborne Leaders Course) could have done as well or better.

Table 9-10

Should the ILC Continue to Train the MFO?

	Active Component		Reserve Component	
	Officer	NCO	Officer	NCO
Yes	7 (78%)	27 (47%)	5 (56%)	40 (63%)
No	2 (22%)	30 (53%)	4 (44%)	24 (38%)

Table 9-11 relates to team building and training. Specifically, given the nature of the battalion, could team building and/or training have been accomplished better somewhere else? The battalion was about evenly divided with respect to bonding. However, 68% of those who answered said that the training could have been done more cost effectively at home station. The *uncertain, undecided,* or *yes and no* responses show that many saw possible benefits deriving from being away from home and home-station training distractors. As before, several mentioned the ILC as a minideployment and a test of the battalion's internal logistics system.

Two questions sought opinions on the major strengths and weaknesses of the ILC. Strengths again clustered into predictable categories, as shown in Table 9-12. For both AC and RC, the major benefit was team building or confidence enhancement. Refresher training and "reblueing" on infantry skills were also praised. One noted: "ILC kind of shook people up and put them into the military mode." A few soldiers could find nothing positive to say; however, several made more than one good comment. For these, only the first two responses were tabulated.

Weaknesses that were identified are shown in Table 9-13. Communication was a major problem—primarily the mismatch between student expectations and course content. Problems focused on the

Table 9-11

Favorable to Change of Location

	Active Component		Reserve Component	
	Officer	NCO	Officer	NCO
For Team Building				
Yes	4 (50%)	29 (52%)	8 (80%)	32 (57%)
No	4 (50%)	27 (48%)	2 (20%)	4 (43%)
For Training				
Yes	4 (44%)	47 (77%)	8 (73%)	40 (63%)
No	2 (22%)	7 (11%)	0 (0%)	3 (5%)
?	3 (33%)	7 (11%)	3 (27%)	21 (33%)

absence of MFO-specific material and the perceived lack of assurances that the soldiers' needs were being satisfied ("ILC instructors hands were tied too much. The course was weak for our needs because it was not MFO related"). Some said that the instruction was "OK for the Guard" or otherwise too basic; others repeated typical "bad attitude" responses.

Two questions that focused on leadership skills were identical to questions on the first pretraining questionnaire. Overall, few said that leadership skills had improved much. As for perceived self-improvement, the critical areas of concern were those which paralleled the aims of the course: team building and tactical and technical proficiency. Table 9-14 shows perceptions for these areas. The only respondents included in these tabulations were those who had indicated on the first survey that they needed improvement in these areas. In this instance, only *improved* or *did not improve* responses were counted. Therefore, the overall self-assessment numbers were very small.

ILC posttraining: During Sinai deployment. Of the original 154 soldiers who attended the ILC, only 74 could be reached to complete this survey. Since all four line companies and HHC responded (the number per company ranged from 8 to 24), the data are probably adequately

Table 9-12

ILC Strengths: Frequency of Response in Each Category

	Active Component		Reserve Component	
	Officer	NCO	Officer	NCO
Bonding	1	7	0	10
Assessment	5	26	7	41
Skills	2	21	3	21
TLPs	2	2	4	0
Not much	1	6	1	5
n =	7	50	11	59

Note. See text for explanation of descriptors. Several respondents had multiple responses.

Table 9-13

ILC Weaknesses: Frequency of Response in Each Category

	Active Component		Reserve Component	
	Officer	NCO	Officer	NCO
Communication	4	7	1	5
No MFO Tasks	2	8	3	9
Content; logistics	1	8	2	7
Level of instruction	1	11	3	14
Bad attitude	0	13	2	13

Note. Several respondents had multiple responses.

Table 9-14

Soldier Reports of Perceived Improvement in Team Building, Tactical Proficiency and Technical Proficiency

	Active Component		Reserve Component	
	Officer	NCO	Officer	NCO
Team building				
Needed improvement	2	15	3	26
Improved	2	9	1	14
Did not improve	0	6	2	12
Tactical proficiency				
Needed improvement	3	21	4	40
Improved	1	10	4	28
Did not improve	2	11	0	12
Technical proficiency				
Needed improvement	2	20	7	45
Improved	0	7	3	31
Did not improve	2	13	4	14

representative, although limited. The sample contained 9 officers (4 AC, 5 RC) and 64 NCOs (31 AC and 34 RC). Approximately 70% of the respondents were either team or squad leaders; 17% were in traditional company-level leader jobs—i.e., company commander, first sergeant, platoon leader, or platoon sergeant.

Although other comments were collected, the primary intent of this survey was to determine if there were any tasks that the soldiers wished they had spent more (or less) time on during the ILC. They were first asked for open-ended responses, and then later to rate the actual tasks from the program of instruction. The 5-point rating scale consisted of *way too much time, too much time, about the right amount of time, not quite enough time*, and *not nearly enough time*.

A sizable percentage of the soldiers felt comfortable with the amount of time allocated to each of the 29 rated tasks. The highest percentage in

this group was for the task AAR where 60% of the respondents marked *about the right amount of time*. Land Navigation (59%), Use of Hand and Arm Signals (58%), and Self-Extraction from a Minefield (54%) also scored high in this category. All of these tasks can be considered MFO mission-relevant tasks.

There were several tasks with high ratings for *too much time* or *way too much time*. The tasks with the highest incidence of this perception were Ambush (64%), Cross Danger Area (62%), Occupy an Assembly Area (60%), Move Tactically (58%), Occupy a Patrol Base (58%), Objective Rally Point (56%), and Perform Linkup (53%). These tasks are traditional infantry tasks. Conversely, some tasks received high *not enough time* and *not nearly enough time* ratings although there were far fewer of these. The most nominated tasks in these categories were Aeromedical Evacuation (60%) and Perform Sling Load Operations (42%). These tasks are especially important to successful performance of the MFO mission.

There were only limited differences between the AC and the RC in their perceptions, although the AC tended to select *too much time* or *way too much time* more frequently. The only task which showed a large difference between the two groups was familiarization with the M249 Squad Automatic Weapon. For the AC, 41% said there was too much training, whereas only 16% of the RC felt that way. This is easily explained by the fact that for many RC soldiers this was their first experience with the M249; most AC soldiers were familiar with it, and many had fired it.

Many other issues and concerns that had been raised before were still in force at the time of this survey. As before, the majority of the soldiers felt that more MFO tasks should have been included in the ILC, including aircraft identification, reporting procedures, MFO rules of engagement, OP operations, and Arabic classes. Very few respondents felt that emphasis on basic infantry tasks was the correct approach; a similar number noted that ILC was acceptable as a means of building teamwork and evaluating soldier competency in infantry skills. Several expressed the opinion that the RIs had been underutilized.

The final question solicited the soldiers' help in planning for future MFO rotations. As before, the majority of the responses focused on three

themes: (1) the ILC, as developed for this particular rotation, was a waste of time; (2) not enough time was spent on MFO specific tasks; and (3) the training could have been done more cheaply and more effectively at Fort Bragg. One soldier commented that "more time should have been spent on leadership, how to train, train the trainer and troop leading procedures."

Assessment by Ranger Instructors. Of the ILC cadre who had participated in training MFO leaders, 21 who were still available 2 months afterwards completed a final survey. The number of prior ILC classes each had taught varied from 1 to 21. For three, it was their first class; two had over 20 classes; the mean was 7.

They were asked to give their opinions on what should be done to train the leaders of future MFO battalions. Several gave more than one answer, but the majority (13 of 21 responses) indicated that the MFO should "deploy to a desert terrain using a mobile training team of ILC cadre." Two suggested remaining at home station with an ILC team; three said it would be best to repeat what had been done for Rotation 28.

The primary concern that surfaced, however, was the need for *both the battalion and the ILC* to be clear, in advance, as to the exact intent of the course. Some suggested that no MFO tasks be included and that such a decision be publicly stated before the start of the course. Others thought the ILC should be tailored to the MFO mission ("They would be better served by doing tasks that apply in the desert"). Several commented that the entire unit needs to be focused when attending, including officers—be prepared to play the game.

Observations

Training schedule/content. The overall training schedule and POI content were finalized before the company commanders and first sergeants reported to the battalion, and no company driven changes occurred after the class started. A consequence of the lack of widespread input to the training schedule was that the overall intent of the training was lost outside the battalion staff. For example, the NCOs had expected practice in MFO-specific tasks; such expectations were evident from initial questionnaire data and from daily conversations with the soldiers. Although the ILC was not intended to include MFO-specific training,

unfortunately the *students* were not aware of this. The training, all light infantry oriented, was perceived as virtually irrelevant to their MFO mission. They did not realize that MFO tasks would be the focus when the unit returned to Fort Bragg.

Team building events. The commander's METL included "form an Infantry Task Force (receive, organize, equip and train the force)." A major element of this task was the cohesion and team building required to make a unified battalion from the diverse group of the soldiers who arrived at the ILC. Team building is always important. In this instance it was perceived as critical if the MFO was to succeed in integrating AC and RC soldiers.

Several classes aimed at cohesion were held. The first was the Water Confidence Course in which all personnel were required to perform tasks that demanded a public display of courage. These involved climbing to the top of a 30-foot tower, sliding down a pulley line across water, and an over-water walk across an 8-inch-wide "log" pathway. This event provided an excellent beginning for the battalion; enthusiasm was high, and the soldiers encouraged and cheered each other on, rallying behind those who found the task especially difficult.

The next confidence and team-building event was held on the first full training day. The Leaders Reaction Course (LRC) was offered by the U.S. Army Infantry School. The officers, first sergeants, and platoon sergeants joined the cadre as observers. The soldiers were randomly assigned to eight-man groups. The course consisted of 17 stations, 10 water hazards, and 7 so-called dry stations. Each station presented a problem or scenario. The intent was to force the group to come up with creative solutions and to work together as a team. There were several possible ways to solve each problem, but each required that the personnel cooperate and rely on each other. This event was well received; laughter and high spirits were very apparent. Between-group competition was high, and within-group motivation appeared to be good.

The final scheduled teamwork and bonding event, rappelling from both low and high platforms and from a helicopter, was held at the end of the second week. Bad weather precluded the helicopter portion, but the entire battalion participated in the rappelling. Some soldiers were

experienced; others had never done it before. Again, this was a very spirited event, with considerable overall competition and camaraderie.

Physical training. A physical training (PT) program was planned for the unit. Occasionally, Rotation 28 personnel led exercises; more often the RI cadre led instruction. Further "toughening" was accomplished through the unit's marching, by company element, from the Ranger cantonment area to the daily training sites. Additionally, there were early morning tactical road marches of 4 to 6 miles; the soldiers were in complete uniform with load-carrying equipment, rucksacks, and weapons.

Classroom instruction. The classroom/bleacher instruction was generally presented, by the RI instructors, to the battalion as a whole. The success of the instruction varied. Some classes such as Train the Trainer, After Action Reviews, How to Train, and How to Brief, were well received. Another, Troop Leading Procedures, was extremely popular and received considerable praise from almost everyone, particularly the RC soldiers who said they were "rusty." For these classes, most of the NCOs were present; the officers attended only irregularly.

An opportunistic class on principles of Unaided Night Vision was offered experimentally one evening to 33 personnel from the battalion. It turned out to be one of the most popular classes and was highly praised. Other classes; e.g., Land Navigation, were called too basic, too long, or just not relevant. Pace Count and Compass Check served as refresher for some soldiers, but were considered boring by most. Opinions on the Global Positioning System (GPS) class varied.

Weapons training. The M16 rifle live-fire and weapons classes were completed in 1 day, at three different ranges. The soldiers zeroed, qualified, and then fired on the advanced rifle marksmanship ranges. The AC soldiers were all familiar with the M16A2 rifle, but most RC had fired only the M16A1. The two rifles have slightly different zeroing procedures, and this caused delays until those who had never fired the M16A2 before became familiar with the process. Another class covered familiarization with the M249 Squad Automatic Weapon (SAW). This training was very well received, probably because so many had never seen it. However, no one had the chance to fire the SAW.

Collective training and situational training exercises. Collective task training was conducted during week two. In contrast to the previous week's procedures, most training was presented by student instructors to the rest of the unit. The tasks were: Move Tactically, Consolidate and Reorganize, React to Contact, Break Contact, Disengage, React to Indirect Fire, Cross Danger Area, Cross Defile, Perform Leader Reconnaissance, Occupy an Observation Post, Occupy a Patrol Base, Sling Load/Cargo Net, and Use Arm and Hand Signals.

The Rotation 28 students prepared these classes 1or 2 days in advance of the lesson, using manuals and materials provided by the cadre; they led their platoons through performance of the activities using the Army's "crawl, walk, run" method. After a short class, the instructor and an assistant demonstrated the actions or elicited the participation of student demonstrators and talked them though the steps (crawl phase). The unit practiced several iterations of the task, with critiques (the walk phase), and finally performed the task from start to finish without interruption (the run phase). This was followed by a student-led AAR, then by a cadre critique for the student instructor. The classes varied according to the skills of the student instructor.

Student-led field exercises continued in the third week. Tasks included: Self-extraction from a Minefield, Occupy an Observation Post, Perform Surveillance, and Make a Terrain Model. For the last of these, the RIs had constructed a prototype, and after discussing it, each of the training platoons broke into small groups and constructed their own terrain models.

The final portion of the third week set the stage for the fourth week's STXs. The battalion practiced Reconnaissance (area, zone, and route) and Surveillance as a part of, and in preparation for, the fourth week's Defend mission.

CONCLUSIONS

Several conclusions can be drawn from the experiences of the MFO composite battalion at the ILC. Caveats which have been included all along, however, must be remembered, as well as the fact that this was, in

effect, *the first iteration of a pilot experiment.* The lessons learned by everyone will be important for future rotations.

Training to Standard

The first question addressed by this research asked whether the Rotation 28 leaders were trained to standard and prepared to conduct training of their own troops upon returning to home station. Although as noted, some portions of the training went more smoothly than others, generally, the answer is yes. The Rotation 28 leaders were trained and able to conduct internal training.

Part of the success is due to the caliber of the RTB cadre and part to high-quality performers of the volunteer battalion. The ILC cadre were experienced in training leaders; they were aware not only of the doctrinally correct standards and procedures, but also of the pitfalls experienced by other units. The high-quality volunteers of Rotation 28 helped to overcome any performance-based inequalities between the RC and the AC. Those who had skill deficiencies when they arrived at the course were highly motivated and generally benefited most. Some AC leaders adopted mentoring roles and helped their RC counterparts when possible.

However, a larger training issue arose because of the precourse decision not to have MFO-specific tasks included. This decision was in line with the ILC's mission statement which focuses on reblueing infantry skills. Unfortunately the decision was perceived as wrong by many of the Rotation 28 leaders who had expected that they would receive MFO training. The problems caused by these varying perceptions about what should have been taught interfered with the training.

Teamwork and Bonding

The second major question focused on the unit's ability to become a cohesive unit. Most of the original concern centered on the issue of the AC/RC mixture—whether these two disparate elements could be combined and work well together. However, very early during the course, it became obvious that most personnel in both groups accepted each other as members of a common MFO unit, and that the AC/RC

difference per se was essentially irrelevant. Some AC soldiers admitted to being pleasantly surprised by the capabilities of individual RC members. Cohesion was largely personality dependent; it was also somewhat dependent on the specific situation. In a more well-defined training environment, the month-long course would have promoted a strong within-unit bond; as it was, the results varied.

Is the ILC the Place to Train the MFO?

The final question was whether the ILC located at Fort Benning is an appropriate predeployment training event for the MFO. This question must be broken down into various aspects: content of the course, the face validity of the location, the RTB instructors, and the advantages of soldiers being away from their home station.

Any battalion derives benefit from external evaluation of its training; and, when the evaluators are the professional caliber of the RTB, these advantages can be very great. The MFO composite battalion profited from the evaluation of unit readiness, strengths, and weaknesses.

The location of the training is more questionable. The terrain was primarily wooded or grassy with open spaces. Signs of Fort Benning civilization (telephone and electrical wires, roads, installation signs) were never far from the training sites. While this did not interfere with training, it reduced the verisimilitude of the course, primarily for those who had expected an MFO-related course. A training venue more nearly representative of the area to which the battalion was going for its mission would have been preferable.

The decision to include no MFO-specific classes should be reevaluated. Although there is no need to have all training be MFO-specific, inclusion of some MFO-related tasks or training vignettes would have helped. Student concerns could be allayed by telling them that time at home station would be allocated to MFO-specific tasks.

Although many complained about their training not being conducted at Fort Bragg, most admitted that being away from the distracters of home station was a good idea that even helped promote unity. Some soldiers also recognized it as a trial separation for those who had not been deployed recently. It also served as a preliminary test of the battalion's

operations and logistics functions (e.g., payroll, mail, communication with the rear detachment, emergencies).

The lessons learned from this first iteration of an MFO Sinai rotation at the ILC were many. Unit performance data may address the question as to how useful the ILC actually was and the wisdom of hindsight plus the passage of time may change the evaluations of the ILC. The ILC lessons will, however, enable future MFO battalions to have a more effective and focused predeployment training experience.

RECOMMENDATIONS

A composite unit, or any all-volunteer force, needs some form of predeployment training experience *like* the ILC (although not *necessarily* the ILC) to assess readiness status. It is also clear that the content of whatever course is given must *appear* to be related to the unit's objectives and METL.

The ideal situation would probably have a special mobile training team of RTB, or a similarly qualified instructor cadre, training the unit. They would teach a mixture of core infantry and MFO-specific tasks. The schedule should incorporate team building, but focus on improvement of squad-level drills and collective tasks.

The precise location for training should depend on resources available and possibly on the locations from which most of the personnel will be drawn. It should, if possible, be conducted in a desert-like environment. Regardless of location, the ideal scenario would allow the unit to have everyone on site far enough in advance so that unit bonding and gauging junior leader performance can begin before the start of the actual training. There is very little for senior leaders and staff to do at the ILC, and lower level leaders need to begin to experience the autonomy they will have on the MFO mission.

With the RTB or other similarly qualified personnel as on site instructors, senior leaders could be utilized to prepare for and welcome the enlisted personnel into the battalion at home station. Staff officers could begin to run their tactical operation centers (TOCs) at home station. Other personnel could create professional-development classes on

culture, customs, tours, etc., to promote unit cohesion when the lower level leaders have returned to the battalion. Linguists could be available to help build spirit by beginning to teach battalion personnel things such as reading and counting in Arabic.

All of this would have the salutary effect of permitting all platoon leaders, platoon sergeants, squad leaders, and team leaders to participate in and conduct training they will be responsible for during the deployment. The time to encourage the independence of junior leaders is during their initial training event.

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SECTION 4

SOLDIER ATTITUDES AND PERCEPTIONS

The fourth section includes four chapters describing the soldiers' attitudes and perceptions about their squads, their leaders, and the impacts of the deployment on their personal lives. The chapters analyze how the soldiers' attitudes and perceptions changed from when they first reported for duty through nearly the end of the deployment in the Sinai. We attempted to identify what they thought, why they thought it, and how these perceptions might affect their civilian lives and military careers as well as their propensity to volunteer in the future.

In Chapter 10, Siebold analyzes the squad cohesion, soldiers' motivation for performing the mission, and their level of morale within the line company squads. This chapter also uses small-unit dynamics theory to explain and interpret the findings.

In Chapter 11, Mael and Palmer describe the attitudes and perceptions reported by leaders on their own training and morale, the unit leadership, and the accomplishment of the mission. They also document how the leaders perceived the relationships between Active Component (AC) and Reserve Component (RC) personnel as well as the recommendations for future use of RC soldiers for peace missions.

Chapters 12 and 13 both focus on how the Multinational Force and Observers experience has impacted the military and civilian lives of AC and RC soldiers. Chapter 12 (Oliver, Hayes, and Tiggle) compares the predeployment expectations reported in Chapter 6 with the soldiers' reports of what they actually experienced during the deployment. Lakhani and Abod (Chapter 13) describe the financial gains and losses of both components, relating the amount of gain or loss to the soldiers' intention to remain in the service.

10

SMALL UNIT DYNAMICS: LEADERSHIP, COHESION, MOTIVATION, AND MORALE

Guy L. Siebold

INTRODUCTION

The full scope of the research on small unit dynamics, from which this chapter was derived, was designed to address specific domains of behavioral science theory, certain applied issues, and a set of continuing methodological concerns. The meso-level (middle-level) scientific theories which were addressed concerned cohesion, motivation, and leadership. The military-oriented theories dealt with group performance, "The Mission," and peacekeeping. The main applied issues related to how well Reserve Component (RC) (Army National Guard [ARNG] and Army Reserve) soldiers would carry out a mission traditionally performed by Active Component (AC) soldiers, how well soldiers from a mix of AC and RC units would work together, what the impact of the Multinational Force and Observers (MFO) Task Force in the Sinai experience would be on soldiers (e.g., on their retention), and what lessons could be learned (e.g., for force structuring). The major methodological concerns were whether the measures used would show the desired characteristics across soldiers over time; whether changes in the level of the measures appeared to be a function of individuals, groups, or time; and whether the data collected would meet standards for validity at a given period and over time. The research was planned to provide valuable input to theory, to military knowledge and planning, and to the training of the leaders of future deployments and peacekeeping missions.

Specifically, this chapter describes the perceptions of leadership, cohesion, motivation, and morale of the soldiers of the 28th Rotation as they prepared for and carried out their assignment to the MFO in the Sinai Peninsula, Egypt. The focus is on the soldiers at the platoon and squad level, with an emphasis on those situated at remote sites where their primary purpose was to observe and report. This chapter covers research orientation, methods and measures, data quality, mission trends over time in the variables measured, interrelations among the main variables, remote site structure and dynamics, and the relation between unit dynamics and some important outcomes.

RESEARCH ORIENTATION

Leadership

Most leadership research has its roots in historical analysis, personnel selection and compensation, or training. The thrust of the research has at times been on the leader as an individual (personality, traits, or charisma), as a leader under contingent situations (effective under condition "A", not effective under condition "B"), or as a leader located in a social structure (a hierarchy or in relation to those around him—followers, peers, superiors). For the most part, this set of research has shared certain assumptions and a world view that is consistent with and supportive of the "industrial society" motif under which the research was conducted. The focus has been on the rational analysis of leader characteristics or behaviors that can be role-modeled, selected for, or trained in individuals so that they can lead, manage, and orchestrate small or larger parts of the industrial machine (e.g., Bass, 1996; Blades, 1986).

Some recent research has begun to address the softer side of leadership (e.g., interpersonal relations and organizational culture) and to return to the nonrational (e.g., symbolism or charisma). This type of research is a transition to addressing leadership within the motif of the postindustrial, information society. That motif includes a focus on groups of leaders rather than on dominant individuals, on a climate of learning rather than on one of control and contingency planning, and on leaders as enablers and context setters rather than as drivers of machine systems. This focus is on groups of leaders working together to provide the conditions and the environment for soldiers to understand, personally

want to, and succeed at their jobs and missions, both individually and as cohesive collectives. The emphasis is on the integrative as opposed to the directive functions of leadership.

The leadership variables in the MFO peacekeeping research reflect this information society motif. They are familiar rather than new variables: (1) the effectiveness of the top leaders in a platoon (at performing their tasks and at taking care of their soldiers) and (2) leadership team cohesion. Note that the variables are at the group rather than the individual leader level. The research provided no assessment of specific individual leaders and their characteristics; there was no attempt to relate the behavior of specific individual leaders to the performance of their subordinate elements; there was no attempt to determine the precise leader skills and abilities needed to accomplish the mission; and there was no effort to identify how leaders developed during the research period.

The use of the group level in the research is consistent with the high degree of turnover of leaders in Army units, the experience that leaders in a group will compensate for the limitations of any given leader, and the tendency of soldiers to view individual leaders along a single, "very good to very bad" dimension. In terms of unit cohesion, these leadership variables represent the dimension of vertical bonding, i.e., soldier perceptions of their ties to their leaders. It was expected in this MFO peacekeeping research that for units with strong leadership there would be higher levels of squad member cohesion and soldier motivation as well as more positive perceptions of the command climate in the unit. The command climate was defined in terms of: (a) unit learning climate, (b) rule clarity (anomie), and (c) unit pride. The command climate, in unit cohesion terms, would represent the dimension of organizational bonding, i.e., the soldier perceptions of their ties to the unit as a whole. Of course, all these variables are intertwined. One of the goals of the research project was to make progress in sorting out how these variables were related among themselves over time.

Cohesion

Cohesion has been one of the standard variables measured in research on group dynamics. Due to recent improvements in its

conceptualization and measurement, the variable has seen a resurgence in use and theoretical importance. In general terms, small unit cohesion (or more correctly—cohesiveness) can be defined as the degree to which the forces of social control, internal and external to individual group members, maintain a pattern of relationships among the members which allows the group to accomplish its mission (Siebold, 1987). The value of cohesion in a group is that it allows the group to operate with greater teamwork and unity, to withstand higher levels of stress, and generally operate more efficiently and effectively in its environment (Siebold, 1988).

Military unit cohesion is more "full" than the cohesion examined in a great deal of academic research (Siebold & Lindsay, 1994). It is more full because of the nature of military groups. They exist in the real world rather than just in the laboratory; military groups have a hierarchy of formal leaders; military groups are ongoing, relatively permanent entities; and military groups have real world, meaningful missions. Thus, military unit cohesion is measured not only in terms of the affective (e.g., trust) and instrumental (e.g., mutual aid) bonds but also at three different dimensions: among peers, between leaders and subordinates, and between group members and the unit as a whole (Siebold & Kelly, 1988).

Given that the soldiers assigned to Rotation 28 for the MFO force in the Sinai were an ad hoc unit put together especially for that rotation and that they were a mixture of AC and RC soldiers, a key issue was the extent to which they would build and maintain cohesion over their tour of duty. Of specific interest was the degree of cohesiveness that would be obtained at the various Sinai remote sites where much of the primary mission would be carried out under AC or RC site commanders. In a more academic sense, there was concern over how unit cohesion would interplay with the other variables measured over time.

Motivation and Morale

Past research has shown that motivation is a strong predictor of unit performance, especially under effective leadership and a positive command climate (Siebold, 1994). Two types of motivation were examined: job motivation and mission motivation. Job motivation was conceptualized in terms of the level of effort that soldiers would

contribute to their day-to-day task activities. Mission motivation was conceptualized in terms of the support of a soldier for the MFO mission in the Sinai. Of interest were the levels of both types of motivation over the tour and whether that motivation was related to the reasons a soldier gave for volunteering for the assignment.

Morale was conceptualized in terms of how the soldier felt about his current situation—negatively or positively. Of interest was how the motivation of a soldier related to his morale over time and whether extraneous factors such as family concerns and opportunities for travel and education related to motivation and morale. Again for academic purposes, there was concern over how motivation and morale would interplay with the other variables over time.

Military Oriented Theories

It has been the position of this author that small unit performance is primarily a function of soldier motivation, cohesion, intelligence, and training under the condition of positive leadership (i.e., effective leaders and a positive command climate). As noted previously, the research was designed to examine the interplay of these variables over time and relate them to whatever outcome measures could be obtained. In addition, there was a desire to understand the nature of the MFO Sinai Mission on its own terms. Do soldier attitudes and perceptions (a) remain constant over time, (b) modulate, (c) become more positive, (d) decline steadily after an initial honeymoon period, or (e) decline for a while and then make a partial recovery? Also, the findings about the 28th Rotation needed to be put in the context of other rotations to the Sinai so that one could determine what effects appeared to be a function of Rotation 28 dynamics and what appeared to be the typical result of any rotation to the Sinai.

METHODS AND MEASURES

Data Collection

Data for the research described in this chapter were obtained by questionnaires administered primarily by researchers from the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) on site where the soldiers were located. Questionnaires were administered at the

start of training for the rotation in August 1994 at Fort Bragg, NC (leaders only), in October 1994 at Fort Bragg (soldiers and any leaders who missed the August administration), in December 1994 at the end of training for the rotation at Fort Bragg, in February 1995 at South Camp in the Sinai, and again in May 1995 at South Camp in the Sinai. In the August and October 1994 administrations, soldiers responded right on the questionnaire booklet. In the remaining administrations, soldiers responded by marking their answers on a machine-scannable answer sheet. Sheets containing soldier responses were returned to ARI where they were cleaned for errors and scanned; the data were then entered into an SPSS Windows database.

Questionnaire Scales

Sets of items in the questionnaire formed scales measuring key concepts for the research. All the scales had been used in earlier research. However, the specific wording or verb tense of many items were tailored to fit the soldiers in Rotation 28 or reflect the stage of the rotation during which the soldiers responded. For the August and October 1994 administrations, respondents were asked to answer the items as they related to their losing (past) unit, except for the items on their motivation for the mission in the Sinai. In the remaining administrations, soldiers were asked to respond in terms of how they currently saw things in their Rotation 28 unit. In addition to substantive items, soldiers were asked to provide demographic information such as their unit, remote site, rank, racial/ethnic group, sex, educational level, and social security number. Tables 10-1 - 10-3 present the items that composed each major scale for the May 1995 round of data collection. Also given are the response alternatives for the scale questions and scale reliability data from previous research (denoted with an "x").

Morale was measured simply by asking respondents to rate their personal morale (Very high, High, OK, Low, Very low) on the February and May 1995 questionnaires and on the separate May 1995 Family Questionnaire (Very High, High, Moderate, Low, Very Low). For the analysis, responses to the two virtually identical morale items on the two different May 1995 questionnaires were averaged together to make a two-item scale on morale.

Table 10-1

Scales Measuring the Leadership Elements

Leadership Team Cohesion
(In my platoon:)

20. Top leaders (platoon leader, platoon sergeant, and squad leaders) work well together as a team.
21. Top leaders pull together to get the job done.
22. Top leaders really care about each other.
23. Top leaders trust each other.

Response alternatives for all items: Strongly agree, Agree, Neither agree nor disagree, Disagree, Strongly disagree.
Scale data: alpha = .89x; item-total *r* range = .73x - .85x.

Learning Climate
(In my platoon, SOLDIERS:)

9. Are given a lot of responsibility for their work.
10. Are encouraged to do things on their own even if they sometimes make mistakes.
11. Get feedback from their leaders on how well the soldiers are doing.
12. Feel that the emphasis is on getting things right, and not just on looking good.
13. Can admit their mistakes and are helped to learn from them.
14. Feel the leaders have confidence that their soldiers will do their jobs right.
15. Are provided with guidance and direction when assigned new duties.

Response alternatives for all items: Strongly agree, Agree, Neither agree nor disagree, Disagree, Strongly disagree.
Scale data: alpha = .87x; item-total *r* range = .47x - .68x.

(table continues)

RESULTS

Data Quality

Analysis of the data showed that the reliability of the scales measuring the major constructs was high. With only one exception for one data collection period, the Cronbach's alphas were .74 or higher for all the scales over all the periods. Most of the alphas were in the .80s or above. There was general stability over time for the scales in their alpha

Table 10-1 (Continued)

Scales Measuring the Leadership Elements

Leader Effectiveness
(How often do the top leaders in your platoon:)

24. Look out for the welfare of their soldiers?
25. Encourage soldiers to work together as a team?
26. Act friendly and approachable?
27. Settle conflicts when they occur in the platoon?
28. Demonstrate they know Army tactics and doctrine?
29. Work hard and try to do as good a job as possible?
30. Pull their share of the load in the field?
31. Maintain high standards for unit performance?
32. Demonstrate they are effective leaders?
33. Show they are the kind of leaders one would want to serve under in combat?
34. Keep subordinates well informed about what is going on?
35. Keep themselves informed about the progress subordinates are making in their training?
36. Demonstrate they have the expertise to show subordinates how best to perform a task?
37. Listen well and care about what a subordinate says when he goes to his leaders for help?

(Leader effectiveness items address: initiating structure, soldier consideration, and task effectiveness.)

Response alternatives for all items: Almost always, Usually, Sometimes, Not usually, Almost never; (or Don't know or can't answer).
Scale data: alpha = .97x; item-total *r* range = .79x - .97x.

Note. Item numbers are from the questionnaire. Item-total *r* range is the range of correlations between each item and the scale mean with the item deleted. An "x" after the scale data numbers indicates the numbers were from prior research.

values and in the ranges of inter-item and item-scale total correlations. Further, the values of the reliability characteristics for the scales were similar to those in previously collected data sets, as noted in Tables 10-4 - 10-5. In addition, the standard deviations of the responses to the scales were relatively consistent over the various data collection periods.

Table 10-2

Scales Measuring the Squad Member Cohesion Elements

Squad Member Cohesion Scale
(In my platoon:)

16. Squad members work well together as a team.
17. Squad members pull together to get the job done.
18. Squad members really care about each other.
19. Squad members trust each other.

Response alternatives for all items: Strongly agree, Agree, Neither agree nor disagree, Disagree, Strongly disagree.
Scale data: alpha = .86x; item-total *r* range = .68x - .71x.

Rule Clarity (Anomie) Scale

38. The soldiers in my platoon know what is expected of them.
39. Rules are consistently enforced.
40. The reasons for being rewarded or promoted are well known.
41. The behaviors that get you in trouble or punished are well known.
42. The priorities in my platoon are clear.

Response alternatives for all items: Strongly agree, Agree, Neither agree nor disagree, Disagree, Strongly disagree.
Scale data: alpha = .86x; item-total *r* range = .68x - .71x.

Pride in the Platoon Scale

43. The soldiers in my platoon feel they play an important part in accomplishing the mission.
44. Soldiers are proud to be in my platoon.

Response alternatives for all items: Strongly agree, Agree, Neither agree nor disagree, Disagree, Strongly disagree.
Scale data: alpha = .69x; inter-item *r* = .52x.

Note. Item numbers are from the questionnaire. Item-total *r* range is the range of correlations between each item and the scale mean with the item deleted. An "x" after the scale data numbers indicates the numbers were from prior research.

This occurred despite variations in the sample for each data collection. The Fall 1994 data collection did not include the full complement of subjects; they had not all been incorporated into their units. The Sinai data collection early in the rotation (February 1995) was truncated due to weather and mis-scheduling; only a partial sample was obtained. The final (May 1995) late rotation data collection was an

Table 10-3

Scales Measuring the Soldier Motivation Elements

Job Motivation Scale
(Regarding your work with your platoon:)

5. I don't mind taking on extra duties and responsibilities in my work with this platoon.
6. I work hard and try to do as good a job as possible.
7. I look forward to starting work every day.
8. I am very personally involved in my work.

Response alternatives for all items: Strongly agree, Agree, Neither agree nor disagree, Disagree, Strongly disagree.
Scale data: alpha = .77x; item-total *r* range = .50x - .64x.

Mission Motivation Scale

45. It really matters to me that we do well on our mission in the Sinai Peninsula.
46. I am willing to put in extra effort to accomplish our assignments during this rotation to the Sinai Peninsula.
47. I am learning a lot during this rotation to the Sinai Peninsula.

Response alternatives for all items: Strongly agree, Agree, Neither agree nor disagree, Disagree, Strongly disagree.
Scale data: alpha = .84x; item-total *r* range = .68x - .73x.

Note. Item numbers are from the questionnaire. Item-total *r* range is the range of correlations between each item and the scale mean with the item deleted. An "x" after the scale data numbers indicates the numbers were from prior research.

enhanced sample which included substantial numbers of Headquarters Company respondents.

Yet the responses demonstrated remarkable consistency and stability in scale characteristics. Factor analyses (principal component, varimax) done for each time period showed that the scales held together very well. Seven factors accounted for 66% to 71% of the variance, depending on the time period. Each scale composed one of the factors, except for the two-item Pride scale, which loaded on the Rule Clarity scale factor. The scale measuring morale was not entered into the series of factor analyses because it was derived post hoc and existed only for the May 1995 data. However, it was included in a subsequent factor analysis, wherein the Morale scale did form a separate factor. In short, the quality of the measures and of the data appeared very good across the various scales and time periods.

Table 10-4

Scale Reliability Characteristics Over Time

Scale	Data Collection Period FALL94	DEC94	FEB95	MAY95
Leadership Team	.92	.90	.92	.92
Cohesion (4)	.67-.83	.64-.79	.68-.86	.69-.85
	.78-.84	.75-.81	.77-.86	.76-.85
Learning Climate (7)	.92	.86	.87	.89
	.52-.74	.36-.61	.37-.63	.40-.64
	.70-.79	.58-.70	.57-.77	.61-.77
Leader	.98	.96	.96	.97
Effectiveness (14)	.59-.87	.50-.79	.44-.83	.58-.82
	.77-.92	.71-.87	.70-.88	.78-.88
Squad Member	.93	.90	.91	.89
Cohesion (4)	.72-.84	.67-.76	.67-.86	.61-.78
	.82-.84	.78-.79	.76-.83	.74-.77
Rule Clarity (5)	.85	.84	.83	.84
	.47-.60	.44-.61	.42-.57	.41-.58
	.60-.71	.61-.67	.59-.66	.57-.72
Pride (2)	.79	.82	.65	.77
	.65	.69	.48	.63
Job Motivation (4)	.78	.74	.77	.77
	.39-.59	.32-.53	.36-.54	.31-.53
	.50-.64	.47-.59	.50-.62	.52-.64
Mission Motivation (3)	.87	.83	.74	.76
	.62-.78	.57-.70	.37-.72	.42-.73
	.69-.81	.62-.72	.44-.68	.46-.68
Morale (2)				.85
				.74

Note. The number in parentheses after each scale title is the number of questionnaire items in the scale. The first number in each cell is the alpha value; the second set of numbers in each cell is the inter-item correlation range or item correlation if the scale has only two items; the third set of numbers in each cell is the range of corrected item-total correlations, if the scale has more than two items. (See Tables 10-1-10-3.)

Table 10-5

Scale Descriptive Characteristics Over Time

	Data Collection Period			
Scale	FALL94	DEC94	FEB95	MAY95
Leadership Team	3.79	3.33	3.05	2.86
Cohesion	1.03	.92	1.04	1.07
	309	340	204	442
Learning Climate	3.78	3.51	3.35	3.07
	.89	.83	.86	.95
	324	340	204	443
Leader Effectiveness	3.56	3.84	3.64	3.32
	1.13	.92	1.00	1.08
	313	335	203	439
Squad Member	4.01	3.79	3.69	3.49
Cohesion	.89	.86	.89	.94
	318	340	204	442
Rule Clarity	3.74	3.56	3.50	3.26
	.88	.86	.86	.93
	310	333	203	443
Pride	3.78	3.32	3.35	3.05
	1.04	1.08	.96	1.09
	306	333	203	443
Job Motivation	4.19	3.84	3.79	3.54
	.70	.70	.73	.81
	325	339	205	443
Mission Motivation	4.69	4.09	4.02	3.59
	.60	.89	.82	.99
	306	333	203	443
Morale				2.93
				1.13
				476

Note. Scales range from 1.0 (low) to 5.0 (high). The first number in each cell is the scale mean; the second number is the scale standard deviation; the third is the number responding (*n*). The Fall 1994 scale references were to the soldier's old unit, except for "Mission Motivation," which referred to the MFO-Sinai.

The Mission

Mission (tour of duty) analysis was used to examine the levels of the specific scales or variables of interest. Mission analysis examines the general trend of attitudes and perceptions as a whole, over time, and across rotating units. For the 28th Rotation in the Sinai, a single trend was dominant. There was a steady decrease over time in the levels of the major scales.

To prepare for the mission analysis, similar baseline data were collected during a prior rotation to the Sinai carried out by an AC, light infantry battalion. The general trend of attitudes and perceptions for this prior unit was similar to that of Rotation 28, i.e., a steady decrease over time in the levels of most of the major scales. Although the two battalions were somewhat different in their scale levels during the predeployment stage, their levels (i.e., scale means) were almost identical by the late mission stage. This indicates that there was a mission effect, with similar influences exerted on unit dynamics by the nature of the mission, the rules of engagement, the physical environment, and/or cultural factors (see Table 10-6).

An examination of the data (Table 10-7) from the two rotations shows that the construct scales, whose mean levels decreased the most, were the same. These were the leadership influenced scales, including Mission Motivation. The erosion in mission motivation is supported by anecdotal evidence obtained through conversations which occurred during data collection (also see the next chapter reporting on leader attitudes). Many soldiers expressed an opinion that the mission simply was not that important and said that the MFO presence was predicted to end within a few years because it was not really needed any longer. The soldiers did not feel like peacekeepers; they felt they were in the Sinai for show and to aid the local tourist economy. The decrease in mission motivation might have been exacerbated by the generally modest levels of morale at the late misssion stage. The latter was due in part to the feelings of the soldiers that they were overly confined and bored. Soldiers typically were not allowed free movement in the local areas nor encouraged to mingle with the local population. The principle of achieving mission success by avoiding incidents meant the soldiers were somewhat trapped on site. Further, trips to tourist areas (Cairo, Israel) were few, and facilities and recreation at remote sites were limited.

Table 10-6

Two Rotations: Comparative Scale Means Over Time

Scale		Rotation Stage Pre	Early	Late	Delta B-A Late
Leadership Team Cohesion	A	3.33	3.05	2.86	
	B	3.31	3.07	2.87	.01
Learning Climate	A	3.51	3.35	3.07	
	B	3.38	3.16	3.05	-.02
Leader Effectiveness	A	3.84	3.64	3.32	
	B	3.59	3.48	3.41	.09
Squad Member Cohesion	A	3.79	3.69	3.49	
	B	3.92	3.68	3.61	.12
Rule Clarity	A	3.56	3.50	3.26	
	B	3.60	3.38	3.26	.00
Pride	A	3.32	3.35	3.05	
	B	2.95	3.18	3.07	.02
Job Motivation	A	3.84	3.79	3.54	
	B	3.78	3.67	3.58	.04
Mission Motivation	A	4.09	4.02	3.59	
	B	4.21	3.90	3.56	-.03
Morale	A			2.93	
	B (single item)			2.97	.04

Note. Scales range from 1.0 (low) to 5.0 (high). The first number in each cell (row A) is the scale mean for Rotation 28 to the Sinai; the second number (row B) is the comparable scale mean for an Active Component light infantry battalion on a prior rotation to the Sinai. The differences between the means at a "Late" stage in the rotation for the prior rotation and the 28th Rotation are shown in the last column; i.e. the row B mean minus the row A mean. Rotation stages: Predeployment, Early Sinai, and Late Sinai tour of duty.

The decrease in the Leadership Team Cohesion may be in part a structural artifact of how the battalions were organized. The primary mission, to observe and report, was performed mostly at remote sites, which were usually commanded by squad leaders. This structure left platoon leaders and platoon sergeants in an auxilliary role rather than in the direct, daily command to which they were accustomed. Thus there was a tendency for the platoon leaders and sergeants (and some higher leaders) to micromanage from outside or otherwise try to replace their

Table 10-7

Two Rotations: Comparative Scale Mean Decreases Over Six Months

Scale		Rotation Stage Pre	Late	Decrease Pre-Late	Average
Leadership Team Cohesion	A	3.33	2.86	.47	
	B	3.31	2.87	.44	.46
Learning Climate	A	3.51	3.07	.44	
	B	3.38	3.05	.33	.39
Leader Effectiveness	A	3.84	3.32	.52	
	B	3.59	3.41	.18	.35
Squad Member Cohesion	A	3.79	3.49	.30	
	B	3.92	3.61	.31	.31
Rule Clarity	A	3.56	3.26	.30	
	B	3.60	3.26	.34	.32
Pride	A	3.32	3.05	.27	
	B	2.95	3.07	-.12	.08
Job Motivation	A	3.84	3.54	.30	
	B	3.78	3.58	.20	.25
Mission Motivation	A	4.09	3.59	.50	
	B	4.21	3.56	.65	.58

Note. Scales range from 1.0 (low) to 5.0 (high). The first number in each cell (row A) is the scale mean for Rotation 28 to the Sinai; the second number (row B) is the comparable scale mean for an Active Component light infantry battalion on a prior rotation to the Sinai. The differences between the means at the Predeployment stage and the Late Sinai tour of duty stage in each rotation are shown in the third column; i.e. the "Pre" mean minus the "Late" mean. The average decrease for each scale for row A and row B is shown in the last column.

reduction in authority. The situation was aggravated by the platoon leaders and sergeants spending more time near the flagpole at South Camp and being more subject to details, taskings, and VIP visits.

In any case, it is clear that the unit dynamics of the 28th Rotation appeared similar to that of the light infantry battalion and to be

influenced by the mission. And the mixed component 28th Rotation acted more or less the same as an AC battalion did. All subsequent analyses must be viewed within this context and with the mission effect in mind.

Unit Dynamics: Intervariable Correlations

An initial look at unit dynamics can be obtained through an examination of the correlations among the scale variables over time. The previously described factor analysis indicated how the variables separated out; the pattern of correlations shows how the scales cluster together. Their commonalities indicate where the mutual influences are strongest, assuming a two-way influence and lack of an exogenous causal variable.

The data (Table 10-8) from Rotation 28 suggest that there is a strong leadership cluster in the set of scales (i.e., Leadership Team Cohesion, Learning Climate, Leader Effectiveness, Rule Clarity, and Pride). For example, the largest correlate of Leadership Team Cohesion is the Learning Climate scale, with correlations of .71, .57, .62, and .62 between the scales for the data collected in Fall 1994, December 1994, February 1995, and May 1995, respectively. Since the reference for the fall of 1994 was the prior (losing) unit, that correlation, .71, is less relevant. Taking the last three correlations as a group, it appears that there is a rather consistent mutual influence or correlation between the two scales at about the $r = .6$ level. There are also consistent substantial correlations between the Leadership Team Cohesion scale and the Leader Effectiveness, Rule Clarity, and Pride scales, with r's in the .5 range. The Learning Climate scale, in turn, also is related to the Rule Clarity and Pride scales, with $r = .6$. The Leader Effectiveness scale, while related to the other scales in the cluster, is more weakly so. Squad Member Cohesion, on the other hand, is not strongly related to the other scales at all. Its relative independence is shown by its lack of correlation at .5 or higher for the last three periods of data collection.

There also appears to be a weak cluster surrounding personal motivation and morale, consisting of the Pride, Job Motivation, Mission Motivation, and Morale scales, which are joined to the other variables through the Learning Climate, Rule Clarity, and Pride nexus. While the numbers are obviously not crystal clear, they nonetheless portend three

Table 10-8

Correlations Among Scales Over Time

	1	2	3	4	5	6	7	8
1. Leadership Team Cohesion								
2. Learning Climate	.71,.57 .62,.62							
3. Leader Effectiveness	.34,.53 .51,.63	.34,.53 .48,.54						
4. Squad Member Cohesion	.66,.43 .38,.38	.70,.43 .44,.49	.27,.31 .18,.35					
5. Rule Clarity	.63,.52 .58,.57	.63,.61 .63,.62	.29,.48 .52,.50	.51,.42 .28,.48				
6. Pride	.66,.52 .57,.59	.64,.63 .60,.61	.29,.45 .42,.49	.62,.45 .41,.48	.72,.69 .68,.67			
7. Job Motivation	.30,.41 .32,.37	.44,.56 .46,.54	.09,.37 .22,.34	.37,.41 .33,.44	.43,.47 .33,.48	.32,.51 .27,.53		
8. Mission Motivation	.11,.30 .32,.39	.12,.46 .36,.44	.02,.31 .27,.36	.15,.33 .25,.37	.18,.48 .41,.44	.19,.56 .43,.51	.22,.54 .44,.54	
9. Morale (May 1995)	.37	.42	.35	.29	.32	.44	.50	.38

[Cell Data Sets:
FALL94,DEC94
FEB95, MAY95]

Note. If $r = .12$ or above, $p < .05$; if $r = .15$ or above, $p < .01$. See Table 10-5 for n's.

major axes in the unit dynamics, which are built upon a base of individual differences. These axes or dimensions are: (1) leadership, (2) squad members and their cohesion, and (3) organizational culture. The dimensions fit with previous theoretical conceptualizations of military unit cohesion (Siebold & Kelly, 1988) and that mentioned in the section above on research orientation. The fact that the correlations among the

scales are relatively stable over time suggests that these unit dynamics might be portrayed adequately within a static systems model. In such models, the constructs are related in specified stable ways, and change comes primarily from exogenous variables or events, such as change in group membership. For example, turnover in members or leaders can effect the array of individual differences on such characteristics as attitude towards one's job and a general postive or negative outlook. Since unit performance is not well addressed in the MFO data, the important interplay between the degree of successful performance by the unit in its environment and the other major constructs cannot be addressed in a clearcut manner.

Remote Sites

Structure. The four line companies (A, B, C, and D) each had two line platoons. Each line platoon had three or four squads, for a total of six or seven line squads per company. The 13 squads from two line companies would man the remote sites for a 3-week shift while the 13 squads from the other two line companies were in South Camp. Then they would switch. After completing the 3-week shift at the remote sites, the squads would return to South Camp where the soldiers would be assigned to a Quick Reaction Force, details, or specific training, or scheduled for tours or rest and recreation.

There are four types of remotes sites. Observation posts (OPs) are typically located at strategic high positions offering a wide view. OP 3-11, for example, is located on Tiran Island at the entrance to the Gulf of Aqaba, about halfway between the Sinai and the Saudi Arabia mainland. At OP 3-11 there is a panoramic view permitting soldiers to observe all ships (and planes overhead) entering or leaving the Gulf of Aqaba through the Tiran Strait. Check points (CPs) are typically located at a strategic road intersection or along a main traffic artery. CP 3-A, for example, is located on the main road along the Gulf of Aqaba just south of the Israeli-Egyptian border. Besides presenting a view of the main road, the CP 3-A location offers views of the Sinai area, Israel, Jordan, and Saudi Arabia as well as a small island nearby (with the ruins of a castle built during the Crusades). Sector control centers (SCCs) are located and function like either an OP or CP, but they are centrally positioned among a cluster of remote sites, whose activities they monitor

and coordinate. Finally, there is a quasi-remote site, the Front Gate at South Camp. Although obviously not remote, the two squads that man the Front Gate are from line companies and are structured and operated as if they were at a remote site.

The typical remote site is headed by a site commander, usually a staff sergeant (E6). Under him are two sergeants (E5) who function as team (or site "squad") leaders. Under each sergeant are four squad members (total $N = 11$). One of the eight squad members would be a medic or emergency medical technician (EMT). Of course, there is some variation in structure among the remote sites. For example, at CP 3-A there are also a linguist, a military policeman, and one of the platoon leaders (a lieutenant). At SSCs 5 and 7, their respective company commanders stay much of the time along with some company headquarters personnel. At SCC-6, another platoon leader usually resides. Some remote sites are divided into three teams instead of two. Further, at SCCs, the medic is typically a sergeant rather than a specialist (E4) as at the other remote sites.

Demographics. Before the analyses of the remote sites are presented, it is useful to provide a demographic profile of the soldiers at those sites. A list of remote sites along with the number of enlisted soldiers at them (by service component) is presented in Table 10-9. Remote sites are given twice since two companies had a squad assigned at each site. Note that the majority of the soldiers were ARNG, that there were no more than three Regular Army (RA) noncommissioned officers (NCOs) at any site, and that the number of soldiers at a site varied from 10 to 15. (In this and subsequent tables, each company was assigned an arbitrary number in place of a letter to provide some anonymity to the respondents.)

The distribution of soldiers by component by position is provided in Table 10-10. Note that all the squad members were either from the ARNG or Army Reserve (AR). Note also that while there were 16 RA site commanders but only 10 ARNG site commanders, the total number of NCOs and line platoon leaders from each of these two components was equal-53.

The platoon leader and platoon sergeant position numbers are given in Table 10-10 for informational purposes. Leaders in these positions, for

Table 10-9

Service Component of Personnel by Remote Site

Remote Site	Component AR	ARNG	RA	Total
OP 3-1, Co 1		10*	1	11
OP 3-2, Co 1		10*	1	11
OP 3-8, Co 1		12*		12
OP 3-9, Co 2	1	9*	2	12
OP 3-11, Co 2		10	2*	12
CP 3-A, Co 1		10	3*	13
CP 3-B, Co 1		10	2*	12
CP 3-C, Co 2		8	2*	10
CP 3-D, Co 2		10*	1	11
SCC 5, Co 1		10	3*	13
SCC 6, Co 1		12	1*	13
SCC 7, Co 2		10	2*	12
Front Gate, Co 2		10	2*	12
OP 3-1, Co 4		10	1*	11
OP 3-2, Co 4		9*	1	10
OP 3-8, Co 4		9*	2	11
OP 3-9, Co 3		11	2*	13
OP 3-11, Co 3		11*	1	12
CP 3-A, Co 4		10	2*	12
CP 3-B, Co 4		9	1*	10
CP 3-C, Co 3		7	3*	10
CP 3-D, Co 3	1	9*	2	12
SCC 5, Co 4		13	1*	14
SCC 6, Co 4		8	3*	11
SCC 7, Co 3		13	2*	15
Front Gate, Co 3		14*	1	15
Total	2	264	44	310

Note. Numbers reflect only enlisted personnel, no officers, as of May 1995. Component: AR = Army Reserve, ARNG = Army National Guard, RA = Regular Army. Companies are labeled by an assigned number rather than their letter to limit identification. * = number includes Site Commander. Of the 309 remote site personnel who identified themselves by racial/ethnic group, 4 (1.3%) were Asian, 7 (2.3%) were Hispanic, 10 (3.2%) were Other (e.g., Native American Indian), 42 (13.6%) were Black, and 246 (79.6%) were White. One remote site commander identified himself as an Other; 4 reported themselves as Black; and 21 listed themselves as White.

Table 10-10

Service Component of Line Personnel by Position

	Component			
Position	AR	ARNG	RA	Total
Squad Member	2	196		198
Specialist Medic/EMT		22		22
Team Leader/Other NCO		33	25	58
NCO Medic		3	3	6
Site Commander		10	16	26
Platoon Sergeant		3	5	8
Platoon Leader		4	4	8
Total	2	271	53	326

Note. Numbers as of May 1995. Component: AR = Army Reserve, ARNG = Army National Guard, RA = Regular Army. One platoon leader identified himself as Hispanic; the other platoon leaders and all platoon sergeants listed themselves as White.

the most part, were not involved in the day-to-day operations of most remote sites. Platoon sergeants and most platoon leaders usually operated out of South Camp.

Basic demographic characteristics for the enlisted personnel at the remote sites are provided in Table 10-11. Note that there is quite a bit of variability among the sites in terms of these characteristics. Expressed differently, one can say that the sites were not demographically homogeneous.

Contexts. Before one can examine the dynamics of remote sites, it is necessary to consider the impact of contextual variables on those dynamics. In particular, there are potential impacts from the company under which a remote site is organized, the service component of the site commander, the nature of a given type of site, and the jobs or positions which the personnel in a remote site occupy.

The mean scale values for each company and their change from the predeployment stage are shown in Table 10-12 and indicate one context

Table 10-11

Personnel Characteristics by Remote Site

Remote Site	No. States	Characteristic % College	% Minority	% Married
OP 3-1, Co 1	6	54.6	36.4	18.2
OP 3-2, Co 1	6	36.4	9.1	36.4
OP 3-8, Co 1	5	41.7	41.7	33.3
OP 3-9, Co 2	4	33.3	16.7	33.3
OP 3-11, Co 2	5	50.0	41.7	66.7
CP 3-A, Co 1	5	53.9	15.4	23.1
CP 3-B, Co 1	3	50.0	16.7	58.3
CP 3-C, Co 2	4	40.0	20.0	30.0
CP 3-D, Co 2	4	18.2	18.2	27.3
SCC 5, Co 1	4	46.2	23.1	30.8
SCC 6, Co 1	6	53.9	38.5	15.4
SCC 7, Co 2	6	33.3	50.0	27.3
Front Gate, Co 2	5	50.0	16.7	18.2
OP 3-1, Co 4	5	36.4	18.2	36.4
OP 3-2, Co 4	4	50.0	20.0	40.0
OP 3-8, Co 4	7	18.2	9.1	18.2
OP 3-9, Co 3	4	53.9	23.1	30.8
OP 3-11, Co 3	4	41.7	8.3	16.7
CP 3-A, Co 4	5	33.3	16.7	50.0
CP 3-B, Co 4	4	70.0	10.0	0.0
CP 3-C, Co 3	3	50.0	10.0	10.0
CP 3-D, Co 3	7	41.7	0.0	25.0
SCC 5, Co 4	4	42.9	21.4	21.4
SCC 6, Co 4	4	45.5	0.0	36.4
SCC 7, Co 3	4	26.7	33.3	42.9
Front Gate, Co 3	4	60.0	20.0	20.0
Mean	4.7	43.5	20.5	29.5
Minimum	3	18.2	0.0	0.0
Maximum	7	70.0	50.0	66.7

Note. Numbers reflect only enlisted personnel, no officers, as of May 1995. No. of States = the number of home states of the Guardsmen at a site. % College = the percentage of soldiers at a site who at least had some college education before joining the rotation. % Minority = the percentage of soldiers at a site who described themselves as Asian, Hispanic, Black, or Other (than White or one of the preceding). % Married = the percentage of soldiers at a site who reported themselves to be married.

Table 10-12

Mean Scale Values and Change by Company

Scale	Company 1	2	3	4
Leadership Team	2.66	3.12	2.28	2.94
Cohesion	-.58	-.52	-.64	-.16
Learning Climate	2.95	3.12	2.32	3.00
	-.79	-.40	-.80	-.31
Leader Effectiveness	3.18	3.64	2.75	3.46
	-.71	-.43	-.78	-.31
Squad Member	3.32	3.46	3.09	3.60
Cohesion	-.61	-.23	-.24	-.27
Rule Clarity	3.20	3.33	2.70	3.09
	-.53	-.37	-.62	-.33
Pride	3.11	3.23	2.11	2.83
	-.43	-.24	-.84	-.31
Job Motivation	3.53	3.42	2.88	3.54
	-.44	-.42	-.73	-.09
Mission Motivation	3.59	3.46	2.96	3.66
	-.54	-.81	-.99	-.30
Morale	3.03	3.02	2.08	2.93

Note. Numbers are based on remote site means derived from responses by enlisted personnel, no officers. n = 7 remote sites for companies 1 and 4; n = 6 remote sites for companies 2 and 3. The first number in each cell is the mean of the means of the remote sites within the company late (May 1995) in the Sinai rotation. The second number is the change in that value from the predeployment (December 1994) level. Morale was not measured in December 1994.

effect. The scales go from 1 (low end) to 5 (high end), with 3 as a midpoint. Table 10-12 presents, for each scale, the mean of remote site means for each company as well as the change in that mean from predeployment to late in the rotation. It is clear from the table that there is a general parity among Companies 1, 2, and 4. However, Company 3 is much lower than the other three both relatively and at an absolute level on many of the scales. Any analysis using data from remote sites within Company 3 must take this company context into account.

By comparison, the component of the site commander seems to have had only a small impact on the scale values for the remote sites. For each scale, the mean of the means at the remote sites with an RA site commander is higher, by a small amount, than those where the remote site commander was from the ARNG. The decrease in scale values from predeployment levels is also typically less at remote sites with an RA site commander. However, this effect is somewhat misleading because the RA site commanders were not equally distributed among the remote sites. Rather, they were concentrated in the SCCs and CPs. For example, if one considers only the remote sites other than the SCCs, the difference in scale values between the sites with ARNG commanders and those with RA commanders narrows. In a comparison among the remote site types, SCCs had the highest scale levels, OPs had the next highest levels, CPs were third, and the Front Gate sites were clearly at the bottom. The Front Gate personnel never actually "escaped" from South Camp. They had the most risky and tedious set of tasks in checking vehicles and identification documents; they also had to deal with the problems presented by impatient VIP visitors. SCCs, on the other hand, presumably benefitted from the frequent on-site presence of an officer and headquarters personnel. Scale values by component of site commander and site type are given in Tables 10-13 and 10-14.

While the remote sites have a basic manning structure, they do vary in size, number of NCOs, and component mix (refer to Tables 10-9 - 10-10). As a last contextual consideration, it is useful to look at the impact of being in a particular position and component. In general, the higher the rank or position of a respondent, the higher or more positive are his responses to questionnaire items about his attitudes and perceptions. Thus one would expect site commanders to report the highest scale values and squad members to report the lowest, with the team leaders and other NCOs somewhere in between. In contrast, members with marginal status in a unit (i.e., those different from the standard) often view the cohesion and culture of a unit in a less positive, sometimes more objective way. At remote sites, these marginal figures were the squad member level medics or EMTs. The squad member medic/EMT had a special skill and status which was, for the most part, dormant and hence not necessarily status enhancing. For practical purposes, the medic/EMT could be treated as just another squad member. Thus one would expect that squad member medics and EMTs might

Table 10-13

Mean Scale Values and Change by Component of Site Commander

	Service Component of Site Commander	
Scale	ARNG	RA
Leadership Team Cohesion	2.64	2.82
	-.57	-.41
Learning Climate	2.76	2.93
	-.62	-.54
Leader Effectiveness	3.11	3.36
	-.56	-.55
Squad Member Cohesion	3.23	3.47
	-.44	-.29
Rule Clarity	3.01	3.13
	-.57	-.39
Pride	2.74	2.88
	-.60	-.35
Job Motivation	3.27	3.41
	-.51	-.35
Mission Motivation	3.40	3.45
	-.63	-.65
Morale	2.59	2.90

Note. Numbers are based on remote site means derived from responses by enlisted personnel (no officers). n = 10 remote sites for Site Commanders from the Army National Guard (ARNG); n = 16 remote sites for Site Commanders from the Regular Army (RA). The first number in each cell is the mean of the means of the remote sites with a Site Commander from a given component in May 1995. The second number is the change in mean values from prerotation (December 1994) levels. Morale was not measured in December.

experience and report different levels of cohesion and command climate factors than those squad members with mainstream status. Note that the status situation was not marginal for the six NCO medics located at SCCs who functioned as NCOs and served in their primary specialty.

The scale values by position and component are provided in Table 10-15. Generally, the levels of the scale values per position followed expected patterns. For example, the site commanders from the ARNG had higher levels on all scales compared to the ARNG squad members. However, it is interesting to note that the ARNG team leaders and site commanders had higher scale levels on most scales than did their RA

Table 10-14

Mean Scale Values and Change by Type of Remote Site

Scale	Remote Site Type OP	CP	SCC	FG
Leadership Team Cohesion	2.78	2.71	2.94	2.22
	-.53	-.38	-.32	-.96
Learning Climate	2.88	2.74	3.01	2.80
	-.58	-.71	-.48	-.27
Leader Effectiveness	3.30	3.26	3.46	2.48
	-.48	-.57	-.56	-.88
Squad Member Cohesion	3.40	3.39	3.42	3.09
	-.42	-.22	-.34	-.45
Rule Clarity	3.18	2.97	3.19	2.76
	-.43	-.60	-.26	-.64
Pride	2.94	2.75	2.87	2.53
	-.35	-.55	-.40	-.60
Job Motivation	3.42	3.25	3.47	3.11
	-.39	-.52	-.28	-.43
Mission Motivation	3.50	3.32	3.58	3.09
	-.59	-.66	-..57	1.03
Morale	2.81	2.73	2.95	2.34

Note. Numbers are based on remote site means derived from responses by enlisted personnel (no officers). Remote site types: OP = observation post, CP = check point, SCC = sector control center, and FG = front gate; n = 10 for OP remote sites (i.e., 5 sites X 2 shifts); n = 8 for CP remote sites; n = 6 for SCC remote sites; and n = 2 for FG sites. The first number in each cell is the mean of the means of the remote sites within that type late (May 1995) in the Sinai rotation. The second number is the change in that value from the prerotation (December 1994) level. Morale was not measured in December.

counterparts. Even squad members had somewhat higher levels than did the RA team leaders. The squad member medics reported lower scales values than other squad members, except for Job Motivation and Morale. On a substantive basis, all groups showed moderate to low Morale scale values; squad members and team leaders confirmed a weakness in Leadership Team Cohesion, a constrained Learning Climate, and limited

Table 10-15
Mean Scale Values and Change by Remote Site Position and Component

Scale	Remote Site Position and Component						
	SM	SM-M	TL-ARNG	TL-RA	NCO-M	SC-ARNG	SC-RA
Leadership Team Cohesion	2.69	2.66	2.78	2.53	3.50	3.47	3.11
	-.62	-.41	-.17	-.17		+.22	-.25
Learning Climate	2.78	2.54	2.87	2.98	3.57	3.51	3.28
	-.66	-.38	-.59	-.30		-.36	-.08
Leader Effectiveness	3.19	2.98	3.57	3.05	3.38	3.79	3.73
	-.65	-.61	-.15	-.34		-.47	-.27
Squad Member Cohesion	3.41	3.03	3.18	3.26	3.13	3.75	3.67
	-.30	-.34	-.61	-.37		-.50	-.32
Rule Clarity	3.06	2.91	3.14	3.04	2.73	3.76	3.34
	-.53	-.27	-.33	-.54		-.15	-.16
Pride	2.80	2.55	2.84	2.77	2.75	3.39	3.13
	-.53	-.45	-.23	-.28		-.81	-.10
Job Motivation	3.29	3.41	3.50	3.16	3.75	3.97	3.33
	-.43	-.43	-.47	-.41		-.34	-.28
Mission Motivation	3.50	3.26	3.48	3.03	3.17	3.96	3.19
	-.69	-.85	-.61	-.77		-.75	-.33
Morale	2.78	2.95	2.90	2.35	2.58	3.17	2.81

Note. Numbers are based on remote site means derived from responses by enlisted personnel (no officers). Remote site positions: SM = Squad Member, SM-M = Squad Member level Medic, TL-ARNG = Team ("Squad") Leader from the National Guard, TL-RA = Team Leader from the Regular Army, NCO-M = NCO (E-5) level Medic, and SC = Site Commander. SM and SM-M are all from the ARNG or Army Reserve; NCO-M are 3 from the ARNG and 3 from the RA, whose responses are combined to protect their anonymity. The first number in each cell is the mean of the scale responses of those in a given position in May 1995. The second number is the change in that value from the prerotation (December 1994) level. Morale was not measured in December 1994; NCO-M personnel did not receive questionnaires in December 1994. Typical *n*'s for (a) May 1995 and (b) December 1994 - May 1995 changes: SM = 185/173, SM-M = 19/11, TL-ARNG = 31/29, TL-RA = 24/23, NCO-M = 6/0, SC-ARNG = 9/8, and SC-RA = 16/15.

Pride. Also, for most positions, there was a hefty drop in Mission Motivation from predeployment levels.

Remote Site Dynamics

Mission Motivation. Mission motivation is one of the most important dynamic factors because it has been shown to be highly correlated with unit performance (Blades, 1986; Siebold, 1994). It is also one of the more complex factors in that many variables are related to it. The leader-centric view (Bass, 1996; Blades, 1986; Kane & Tremble, 1994) is that mission motivation is a function of an articulate leadership which focuses subordinates on their mission and convinces them of its importance. Further, soldier motivation is a resource that interacts with leadership to influence unit performance. The soldier-centric view (Siebold, 1994) is that subordinates, especially volunteers, already have substantial mission motivation and that one function of leadership is to allow subordinate motivation to be actualized and not to depress it in the process of organizing to accomplish the mission. The learning theory view is that mission motivation is learned and grown through reward and reinforcement (see Siebold, 1994). These views, while different, are not fully mutually exclusive.

Mission motivation was measured for each remote site by the average (mean) of responses to the Mission Motivation scale on the questionnaires completed by the soldiers and NCOs at each site. The analyses consisted of determining what variables significantly predicted the mean levels of mission motivation prior to deployment (December 1994), the mean levels late in the Sinai mission (May 1995), and the change in those levels from December to May. The analyses did not focus on the stage prior to train-up (August-October 1994) or the early period in the Sinai (February 1995) because there were too many missing cases at the individual respondent level.

For the posttrain-up, predeployment stage, the leader-centric view expressed above seemed to be supported. The strongest predictors were leadership related: Leadership Team Cohesion, Pride, and Leader Effectiveness. On the other hand, the influence of the mission motivation of the site commander was only modest, implying that the influence of the leaders as a group was more important than that of a specific leader.

Note from Tables 10-12 and 10-14 that Mission Motivation was relatively high at predeployment, with typical individual-level scale means above 4.0 on the 5-point scale. As the prior tables have shown, Mission Motivation did not remain high over the tour of duty.

However, for the late-mission stage, the soldier-centric view about mission motivation seemed at least equally supported. Late-mission mean motivation over the remote sites was strongly and negatively associated with the problematic leadership in Company 3 and strongly and positively associated with prerotation Squad Member Cohesion and late-mission mean individual Job Motivation. Further, one can see from the Decr(ease) column in Table 10-16 that the strongest correlate with the decrease in Mission Motivation was the corresponding decrease in mean individual Job Motivation. Anecdotally, some soldiers from a prior rotation commented verbally that many soldiers felt the Sinai mission was primarily to fulfill an outdated treaty obligation and to have a U.S. presence in the area rather than to do a military job that was really necessary. They heard rumors that the mission in the Sinai might be terminated in a couple of years. The correlation between predeployment Mission Motivation and the decrease in Mission Motivation ($r = .53$) is an indication of the mission effect and an entropic regression to the mean, i.e., the higher the predeployment level of Mission Motivation, the greater was its decrease over time.

Statistically, late-stage Mission Motivation is overdetermined, i.e., combinations of different variables account for 100% of the variance. This does not help in determining which view or combination of views of mission motivation is more accurate. It seems that early on in a unit's history there is a honeymoon period in which the group as a whole is excited about its mission and that is exemplified by those in leadership positions; hence the early strong correlation between Leadership Team Cohesion and Mission Motivation. As time goes on and learning proceeds, individual factors such as job motivation, morale, and perceptions of reality additionally come into play. The correlation of the decrease in Site Commander Mission Motivation with the decrease in Mission Motivation implies that leaders can drag motivation down as well as build it up.

The strongest predictors of Mission Motivation were those measured with the same methodology and at the same time as Mission Motivation,

Table 10-16

Correlations of Predictor Variables With Mission Motivation

		Mission Motivation		
	Predictor Scale or Variable	Pre	Late	Decr
Pre:	Leadership Team Cohesion	.81*	.39*	.35
	Learning Climate	.53	.54*	
	Leader Effectiveness	.67	.54*	
	Squad Member Cohesion	.52	.71*	
	Rule Clarity	.67	.41	
	Pride	.75	.55*	
	Job Motivation	.67	.34	
	Mission Motivation	1.00	.37*	.53*
	Site Commander Mission Motivation	.37		
Late:	Leadership Team Cohesion		.62*	
	Learning Climate		.71*	
	Leader Effectiveness		.72*	
	Squad Member Cohesion		.54	
	Rule Clarity		.59	
	Pride		.77*	
	Job Motivation		.77*	-.48*
	Morale		.76*	-.43
	Site Commander Job Motivation		.38	-.43
	Site Commander Mission Motivation		.50*	-.49*
Decr:	Leadership Team Cohesion		-.33	.56
	Leader Effectiveness		-.44	
	Rule Clarity			.37
	Pride			.51
	Job Motivation		-.49*	.71*
	Mission Motivation		-.59*	1.00
	Site Commander Job Motivation			.48
	Site Commander Mission Motivation			.60

(table continues)

i.e., the eight other scales addressing unit dynamics. The "Other" category of predictors, i.e., demographic variables or measures from other questionnaires or time periods, which had more methodological independence, provided some useful insights to mission motivation. In the case of remote sites from Company 3, the negative correlation (-.70) demonstrates the damage to motivation that can be done by a problematic

Table 10-16 (Continued)

Correlations of Predictor Variables With Mission Motivation

Predictor Scale or Variable	Mission Motivation Pre	Late	Decr
Other: Volunteered for the Money		-.50*	
OCT-Career Commitment—Emotional		.41*	
Mean Job Knowledge Test Score		.40	
Site From Company 3		-.70*	.47
Number of States Represented			-.34
Percentage—Married		.34	
Percentage—Minorities	.39	.34	
Percentage—Regular Army		-.34	
Standard Deviation of Age at Site		.45	
One State Dominant at Site	.36	.33	
Late-Career Commitment—Emotional		.51*	-.42
Late-Like New Experiences		.42*	

Note. Pre = Predeployment (December 1994); Late = Late in the rotation (May 1995); Decr = Decrease from Pre to Late; and "Other" = Other correlated variables outside the primary set of cohesion, motivation, and leadership scales. OCT = Career Commitment measured in August or October 1994 at the start of the train-up for the rotation. "Site From Company 3" is a dummy variable coded as 2 = site from Company 3 and 1 = site from another company. Career Commitment—Emotional has been labeled elsewhere as Career Commitment—Affective. Like New Experiences is a 3-item scale: (1) I like to travel, (2) I look forward to new experiences, and (3) I like to try foreign foods; responses were on a 5-point scale going from strongly disagree to strongly agree. Numbers in cells are correlation coefficients; if $r = .33$, $p < .05$ (one tailed); if $r = .45$, $p < .01$. A row or cell is empty if the correlation is not significant ($r < .33$). $N = 26$ remote sites. * = variable would register as significant in stepwise regression equation explaining variance in dependent column variable (e.g, Mission Motivation in Table 16 or Squad Member Cohesion in Table 10-17). If there are more than three asterisks in a column, different combinations of predictors account for 100% of the column variable variance. An exception is the Decrease in Mission Motivation where the variables with the asterisks explain only 75% ($r = .87$) of the variance.

leadership situation. More interesting are the correlations between the Mission Motivation scale and (a) Volunteered for the Money ($r = -.50$) and (b) Career Commitment—Emotional ($r = .41$ at the Pre stage and .51 at the Late stage). The first pairing shows the effect of those who volunteered because they needed the money. The second pairing shows the effect of an affective tie to the Army. The contrast between the two pairings has obvious policy implications for recruiting and selecting volunteers. However, none of the "Other" variables supplant the

leadership and soldier job motivation factors as the main determinants of mission motivation over the mission.

Squad Member Cohesion. One of the fundamental assumptions underlying personnel policy for the 28th Rotation to the Sinai was that the Army can form cohesive units out of a volunteer, temporary, just-in-time workforce from geographically distributed locations that can carry out a peacekeeping mission in a limited threat environment. While this assumption proved viable in the case of Rotation 28 to the Sinai, the empirical support undergirding the policy is limited. Thus it is important to examine the fundamental factors appearing to drive cohesion, especially for remote site squads. Therefore, analyses focused on those variables associated with initial predeployment cohesion, late mission cohesion, and any change in cohesion at the set of remote sites.

Three basic hypotheses guided the analyses. The first hypothesis is that squad member cohesion, especially initial cohesion, is a result of demographic homogeneity (mechanical solidarity). In short, people of the same age, race, ethnic group, geographic area, life stage (e.g., marital status), education level, and so forth have more in common, can communicate more easily, have less distrust, and hence are more attracted to the group, can invest in the group at less expense, and can work together more readily (see Butler, Blair, Phillips, & Schmitt, 1987). The second hypothesis is that squad member cohesion is a function of normative forces and rational choice (democratic organic solidarity). In brief, where there are clear and coherent rules, a positive goal-oriented climate (culture), and an accepted group goal (mission), group members will choose to work together, trust one another, and develop and support norms of behavior that will accomplish the group goals (Siebold, 1988). The third hypothesis is that squad member cohesion is a result of strong leadership which inspires group members to bond to each other and go beyond themselves in commitment to achieving an elevated goal (charismatic solidarity; see Bass, 1996). Of course, these three hypotheses are not mutually exclusive; rather, the issue is one of relative strength.

The data show no meaningful support for the homogeneity hypothesis (mechanical solidarity). Variables such as similarity in age, education, and home state had no significant correlation with Squad Member Cohesion. In fact, two variables measuring (for this sample)

heterogeneity were significantly correlated with cohesion; these were the percentage of soldiers who were married and the percentage who were minorities. However, it is likely that these correlations are artifacts resulting from the distribution of different types of personnel across the remote sites. At the individual respondent level, there was no significant difference (using the Scheffe Test or Tukey-Honestly Signficant Difference Test at the $p < .05$ level) in Squad Member Cohesion (Pre, Late, or Decrease) between those who were married and those who were not married; likewise, there was no significant difference in Squad Member Cohesion between those who listed themselves as White and those who described themselves as belonging to one of the other racial/ethnic group categories.

The most support, at the predeployment stage, is for the normative hypothesis. Rule Clarity, Learning Climate, and Mission Motivation are all significantly correlated with Pre-Squad Member Cohesion. Leader Effectiveness is correlated to a lesser degree, and site commander variables are not significantly correlated with cohesion, which shows limited support for the hypothesis that charismatic leadership is the key.

For the Late stage, the picture is less clear. Leadership variables took on a stronger association with cohesion, especially Leadership Team Cohesion and Leader Effectiveness. This is not inconsistent with the Forming-Storming-Norming-Performing view of group development (Tuckman, 1965). Presumably during the predeployment stage, the remote site squads were in the Norming phase where one would expect Rule Clarity to be key. Late in the Sinai tour, the squads were in a Performing phase in which Leadership Team Cohesion and Leader Effectiveness were key to sustaining group performance.

On the other hand, if one looks at the decrease column of Table 10-17, the main variable associated with the decrease was the level of Squad Member Cohesion at predeployment. The higher the initial level of cohesion, the greater was the decrease by late mission. This implies an entropic withering away of early cohesion that "regresses towards the mean." Those sites with greater numbers of RA NCOs experienced less of a decrease. The data are not able to show whether this was due to the distribution of personnel by site, stronger leadership by RA NCOs, or some other reason. However, a scattergram graph portraying the decrease in Squad Member Cohesion on one axis and the

Table 10-17

Correlations of Predictor Variables With Squad Member Cohesion

		Squad Member Cohesion		
	Predictor Scale or Variable	Pre	Late	Decr
Pre:	Leadership Team Cohesion	.51	.35	
	Learning Climate	.50		
	Leader Effectiveness	.45		
	Squad Member Cohesion	1.00	.56	.53*
	Rule Clarity	.60*		.34
	Pride	.59	.36	
	Job Motivation	.49		
	Mission Motivation	.52		
Late:	Leadership Team Cohesion		.68*	
	Learning Climate		.59	
	Leader Effectiveness		.63	
	Rule Clarity		.50	
	Pride		.60	
	Job Motivation		.60	
	Mission Motivation		.54	
	Morale		.58	
Decr:	Leadership Team Cohesion		-.43	
	Learning Climate		-.37	
	Leader Effectiveness		-.57	
	Squad Member Cohesion		-.41	
	Job Motivation		-.42	
	Site Commander Job Motivation			.39
Other:	Volunteered for the Money		-.33	
	OCT-Career Commitment—Emotional	.34		
	Mean Job Knowledge Test Score	.34		
	Site From Company 3	-.50	-.39	
	Number of Soldiers at Site			.36
	Percentage—Married	.43	.39	
	Percentage—Minorities	.33		.50
	Percentage—Regular Army			-.53*
	Late-Career Commitment—Emotional		.38	
	Late-Career Commitment—Practical		.43	
	Late-Like New Experiences			.39

Note. See note after Table 10-16.

Percentage—RA NCOs for the remote sites on the other axis showed a general shotgun pattern with an extreme outlier case at each end that accounted for much of the correlation. In all, the predeployment level of Squad Member Cohesion and the Percentage—RA account for only 44% of the variance in the decrease in Squad Member Cohesion. It seems that the most probable explanation for the general decline in cohesion is that it was a mission effect, which more effective and cohesive groups of leaders were able to dampen.

Leadership Team Cohesion. Most of the concepts underlying the set of predictor scales are very intertwined; mutual influence goes both ways over time and in varying proportions. This is what makes small unit dynamics difficult to measure and interpret. Some constructs logically may precede others, such as leader effectiveness coming before leadership team cohesion. However, the feedback loops and mutual causation are so endemic that the two constructs are difficult to separate and measure outside the laboratory. Although theoretically distinct, leader effectiveness and leadership team cohesion usually vary closely in real units. In addition, these leadership factors can operate as major contingent variables, i.e., unless the leadership factors are up to a certain threshold level, the relations among the other variables and criteria will be muted or may be negative (Siebold, 1994). If leadership fails, units fall apart (go through chaotic entropy until dissolution).

Two variables, predeployment Mission Motivation and the Percentage—Married account for 77% of the variance in Pre-Leadership Team Cohesion (see Table 10-18). That percentage may reflect an imputation of cohesion by the respondents rather than reality. Neither variable is a major contributor toward explaining late mission Leadership Team Cohesion. Why the Percentage—Married, which is also correlated (r = .50) with Mean Age at Site, should be correlated with Pre-Leadership Team Cohesion is not clear, if indeed it is more than an imputation or an artifact. Perhaps the older, married soldiers were more easily managed, which might have allowed the leaders to spend more time and energy on building their own cohesion instead of handling their units (see Kane & Tremble, 1994). On the other hand, Pre-Mission Motivation's correlation with Pre-Leadership Team Cohesion can be seen as much an effect as a cause.

Table 10-18

Correlations of Predictor Variables With Leadership Team Cohesion

		Leadership Team Cohesion		
	Predictor Scale or Variable	Pre	Late	Decr
Pre:	Leadership Team Cohesion	1.00	.58*	
	Learning Climate	.60	.38	
	Leader Effectiveness	.70	.50*	
	Squad Member Cohesion	.51	.59	
	Rule Clarity	.67	.39	
	Pride	.74	.44	
	Job Motivation	.70	.33*	
	Mission Motivation	.81*	.44	
	Site Commander Job Motivation	.41		.63
	Site Commander Mission Motivation	.49		.58
Late:	Learning Climate		.81	-.40
	Leader Effectiveness		.90*	-.41
	Squad Member Cohesion		.68	-.43
	Rule Clarity		.80	-.38
	Pride		.77	
	Job Motivation		.64*	
	Mission Motivation		.62*	-.33
	Morale		.64	
Decr:	Leadership Team Cohesion		-.59*	1.00
	Learning Climate		-.51	.56
	Leader Effectiveness		-.75	.71*
	Rule Clarity		-.43*	.57
	Pride		-.45	.60
	Job Motivation		-.36	.56
	Mission Motivation			.56
	Site Commander Job Motivation			.61
	Site Commander Mission Motivation			.73*
Other:	OCT-Career Commitment—Practical	.40	.35*	
	Mean Job Knowledge Test Score			-.36
	Site From Company 3	-.40	-.54	
	Front gate Site			.34
	Percentage—Married	.56*	.34	
	Percentage—Minorities	.38		
	Mean Age at Site	.44		
	One State Dominant at Site	.33		
	Late-Career Commitment—Emotional		.34	

Note: See note after Table 10-16.

Leadership Team Cohesion late in the mission appears more in line with traditional findings. It is strongly related to Leader Effectiveness and overdetermined (i.e., 100% of the variance is explained by different combinations of variables) primarily by leadership- and motivation-related variables. Also, 69% of the variance in the decrease can be accounted for by decreases in the perception of Leader Effectiveness and Site Commander Mission Motivation. Generically, the level of late-rotation Leadership Team Cohesion appears a function of the mission effect, with possibly excessive micromanagement problems added in.

Morale. Morale has typically been used for description or as a criterion; it has limited explanatory power compared to the other constructs concerning unit dynamics. Nonetheless, morale has been instinctively of interest to commanders. Presumably, that is because they view it as related to the effort and spirit with which their soldiers will address their mission. There is a question of whether morale is the result of downward emanations from strong leadership or of inner emanations shining outward from proud and determined soldiers. The data suggest the latter is the case. Late mission Job Motivation and Pride explain 80% of the variance in Late Mission Morale (see Table 10-19). Leader Effectiveness and Leadership Team Cohesion are not nearly as strongly correlated. As the dummy variable for Company 3 indicates (r = -.80), poor leadership may be responsible for damaging morale while personal motivation and pride may be responsible for sustaining it.

In the "Other" set of variables, it is interesting to note for policy reasons that the importance attached to volunteering for money at a remote site is negatively related to morale. On the contrary, the two aspects of career commitment, at both the predeployment and late mission stages, are positively correlated with Late Mission Morale.

Outcomes

Feelings about the Sinai. Many past research efforts on unit dynamics used externally scored measures of unit performance on field exercises, operational readiness evaluations, or combat training center rotations as criteria. The use of unit dynamic variables has been very effective in accounting for unit success in terms of these externally

Table 10-19

Correlations of Predictor Variables With Late Mission Morale

	Predictor Scale or Variable	Late Mission Morale
Pre:	Leadership Team Cohesion	.50
	Learning Climate	.47
	Leader Effectiveness	.54
	Squad Member Cohesion	.62
	Rule Clarity	.34
	Pride	.44
	Job Motivation	.34
Late:	Leadership Team Cohesion	.64
	Learning Climate	.75
	Leader Effectiveness	.64
	Squad Member Cohesion	.58
	Rule Clarity	.65
	Pride	.82*
	Job Motivation	.86*
	Mission Motivation	.76
	Site Commander Job Motivation	.38
	Site Commander Mission Motivation	.38
Decr:	Learning Climate	-.35
	Leader Effectiveness	-.33
	Pride	-.51
	Job Motivation	-.58
	M ission Motivation	-.43
Other:	Volunteered for the Money	-.42
	OCT-Career Commitment—Emotional	.37
	OCT-Career Commitment—Practical	.39
	Site From Company 3	-.80
	Percentage—Married	.44
	Standard Deviation of Age at Site	.41
	Late-Career Commitment—Emotional	.48
	Late-Career Commitment—Practical	.36

Note. Late Mission Morale was measured late in the rotation (May 1995). Numbers in cells are correlation coefficients; if $r = .33$, $p < .05$ (one tailed); if $r = .45$, $p < .01$. No row entry was made if the correlation was not significant ($r < .33$). $N = 26$ remote sites. * = variable would register as significant in stepwise regression equation explaining variance in dependent column variable (Late Mission Morale). See note after Table 10-16.

scored unit performance measures. However, in the case of Rotation 28 to the Sinai, there were no comparable and appropriate criteria for group performance. While from all indications, Rotation 28, as a whole, did well in carrying out its mission, there were just no site-by-site performance data that could be collected. Thus this section provides analyses of other outcomes that have been considered important from different perspectives. This provides a useful extension of the research on unit dynamics and a greater insight to the peacekeeping mission in the Sinai.

The first outcome of interest is a "gut check" about how the soldiers felt about being in the Sinai by the late mission stage. They literally were asked "How do you feel about being in the Sinai?" The 5-point response scale went from very negative to very positive. As with Late Mission Morale, there was a question of whether the dominant influence would be that of leadership or that of the characteristics of the soldiers themselves. Again, the latter received the strongest support (see Table 10-20).

About 63% of the variance in the remote site mean responses to the question was accounted for by the late stage mean level of Mission Motivation and the mean response to a 3-item scale concerning how the soldiers thought about foreigners. The 3 scale items were: (1) It's much more difficult to work with foreign nationals than with people from the United States (reverse scored), (2) You can trust foreign nationals as much as you can trust people from the United States, and (3) Most people from most countries are pretty much alike. The 5-point response scale went from strongly disagree to strongly agree. Here too, there was a negative correlation (r = -.48) between the importance attached to volunteering for the money and late mission feelings of being in the Sinai.

The Expert Infantryman Badge. Available data were obtained on the soldiers from Company 3 and Company 4 who tried for the Expert Infantryman Badge (EIB). The EIB training and testing was a major effort of the 28th Rotation to benefit both the soldier and the Army through enhanced training, recognition of soldier excellence, and occupying time in a positive way. The test for the EIB is challenging and encompasses physical fitness, skill, and knowledge. The number of soldiers per remote site who tried for the EIB ranged from 3 to 9. There were three sites in which no one passed the test. There were six sites where only one soldier passed, three sites where two soldiers passed, and

Table 10-20

Correlations of Predictor Variables With Mean Sinai Feelings

	Predictor Scale or Variable	Mean Sinai Feelings
Pre:	Leader Effectiveness	.48
	Squad Member Cohesion	.48
Late:	Leadership Team Cohesion	.34
	Learning Climate	.58
	Leader Effectiveness	.43
	Squad Member Cohesion	.38
	Pride	.47
	Job Motivation	.62
	Mission Motivation	.67*
	Morale	.64
	Site Commander Job Motivation	.34
	Site Commander Mission Motivation	.35
Decr:	Job Motivation	-.42
Other:	Volunteered for the Money	-.48
	OCT-Career Commitment—Emotional	.45
	Site From Company 3	-.45
	Percentage—Minority	.34
	Standard Deviation of Age at Site	.43
	Late-Career Commitment—Emotional	.45
	Late-Like Foreigners	.53*

Note. The questionnaire item, measured late in the rotation (May 1995), was "How do you feel about being in the Sinai?" with a 5-item response scale going from "Very negative" to "Very positive." Numbers in cells are correlation coefficients; if $r = .33$, $p < .05$ (one tailed); if $r = .45$, $p < .01$. No row entry was made if the correlation was not significant ($r < .33$). $N = 26$ remote sites. * = variable would register as significant in stepwise regression equation explaining variance in dependent column variable (Sinai Feelings).

one site where three soldiers passed the EIB test. Because relatively few soldiers passed this difficult test, the interesting question at the small-unit level is what accounted for the range in number of soldiers who tried for the EIB.

The soldier-centric view would posit that in units where there was strong job motivation, career commitment, squad member cohesion, and a high level of skills, more soldiers would try for the EIB based on their own initiative and peer group influence. The leader-centric view would posit that in units where there was high leader effectiveness, leadership cohesion, and leader job motivation, the leaders would act as role models

and influence soldiers so that many would apply for the EIB. The climate-centric (organizational culture) view would posit that more soldiers would try for the EIB under a strong learning climate, high rule clarity, and unit pride.

None of these views were clearly supported by the data. Even the question needed modification. Rather than trying to explain the range in number of soldiers who tried for the EIB, the question is better posed as what explains the number of soldiers who did NOT try for the EIB. The results presented in Table 10-21 indicate that the strongest correlations with the percentage of soldiers at a site who tried for the EIB are negative; these correlations are with the decreases in the Learning Climate, Pride, and Leadership Effectiveness. In other words, soldiers at the sites would volunteer to test for the EIB unless they were turned off by their leaders and unit climate.

Table 10-21

Correlations of Predictor Variables With Taking the EIB Test

	Predictor Scale or Variable	% Taking the EIB Test
Late:	Learning Climate	.54*
	Pride	.51*
	Site Commander Mission Motivation	.60*
Decr:	Leadership Team Cohesion	-.55*
	Learning Climate	-.70*
	Leader Effectiveness	-.66*
	Pride	-.70*
Other:	Mean Job Knowledge Test Score	.55*

Note. The dependent column variable represents the percentage of soldiers at a site that tried for the Expert Infantryman Badge (EIB). Numbers in cells are correlation coefficients; if $r = .48$, $p < .05$ (one tailed); if $r = .64$, $p < .01$. No row entry was made if the correlation was not significant ($r < .48$). $N = 13$ remote sites from Company 3 and Company 4. * = variable would register as significant in stepwise regression equation explaining variance in dependent column variable. Different combinations of the predictor variables would account for 100% of the variance in the percentage trying for the EIB among the set of 13 remote sites.

There did appear to be, however, a moderate countervailing positive influence from a composite of the leader-centric, soldier-centric, and climate-centric factors. Table 10-21 shows that there were moderate correlations between the percentage of soldiers taking the EIB test and

Site Commander Mission Motivation (leader centric), Mean Job Knowledge Test Score (soldier centric), and Learning Climate and Pride (climate centric). Together, the negative influence of the "Decr"(ease) variables and the positive influence of the "Late" and "Other" variables, in different combinations, accounted for 100% of the variance in the range of soldiers per site who took the EIB.

Mean job performance. There were no measures of site performance useful as criteria. However, for research purposes during May 1995, ratings of individual job task performance were made on soldiers and NCOs at each site by their superiors up through the platoon leader or platoon sergeant level. Mean ratings of the overall job performance ratings of the soldiers were calculated for each remote site. Of course, like many job performance ratings, they may say more about the raters and the rating system than the individuals rated. Nonetheless, in lieu of an externally rated group performance measure, these mean job performance ratings were used in the analysis.

Table 10-22

Correlations of Predictor Variables With Mean Job Performance

	Predictor Scale or Variable	Mean Job Performance
Pre:	Mission Motivation	.45
Other:	Volunteered to Serve the Country/Army	.36
	OCT-Career Commitment—Emotional	.50*

Note. Mean Job Performance, measured late in the rotation (May 1995), was the average of job task performance ratings (1 = lowest; 7 = highest) for a site; ratings were done by several superiors. Numbers in cells are correlation coefficients; if $r = .33$, $p < .05$ (one tailed); if $r = .45$, $p < .01$. No row entry was made if the correlation was not significant ($r < .33$). $N = 26$ remote sites. * = variable would register as significant in stepwise regression equation explaining variance in dependent column variable (Mean Job Performance).

The basic question is whether any of the unit dynamic variables are useful in explaining mean job performance ratings, whether the variables be soldier, leader, or climate centric. The answer is a rather surprising, "not really." The data show that mean job performance ratings were only significantly correlated with the extent to which the personnel at a remote site were, *before deployment*, emotionally committed to the Army,

motivated by the mission in the Sinai, and volunteering due to patriotism. In other words, remote site mean job performance ratings appeared to be a function of the extent to which the site personnel had the spirit of the "citizen soldier." It may be this spirit which carried them through the mission despite any later reservations about the leadership, mission, job, or, in general, the tour of duty. Assuming this conclusion is valid, the policy implications for selecting and training soldiers and their leaders for future similar missions are obvious.

Career intent. The last of the outcome variables of interest goes beyond the immediacy of the Sinai mission and affects the longer term. The question is about how unit dynamics, by the late mission stage, impact upon expressed intent to stay in the military until retirement. For analytic purposes, the individual-level item on career intent was treated as a continuous response variable and calculated as a mean at the remote site (group) level. The item was also reverse scored so that a higher value represented a greater likelihood of those in the group staying in the military until retirement.

Obviously, one would expect certain "Other" items measuring career commitment to correlate strongly with career intent. The precise issue is whether the dynamic variables concerning leadership, the soldiers, and the command climate over time are influential in explaining the expressed level of intent for a military career toward the end of the Sinai mission. One would predict that the more positive were the perceptions of the unit dynamic factors, the greater would be the mean expressed career intent. In fact, this is what the results were.

What is interesting about Table 10-23 is not that Late-Career Commitment variables were strong correlates of Intent, that the Late unit dynamic variables were modestly correlated with Intent, or that the three variables with asterisks together explained 59% of the variance in Career Intent. What is interesting is that: (a) several predeployment variables from the unit dynamics set still correlated with Career Intent late in the tour of duty and (b) specific structural effects were significant dampeners of intent, i.e., duty at the Front Gate or at a site lead by an ARNG site commander. The latter may say as much about the site as about the fact that the assigned commander was from the ARNG, since such assignments were not random.

Table 10-23

Correlations of Predictor Variables With Mean Career Intent

	Predictor Scale or Variable	Mean Career Intent
Pre:	Learning Climate	.50
	Squad Member Cohesion	.59*
	Rule Clarity	.37
	Pride	.44
	Job Motivation	.42
Late:	Leadership Team Cohesion	.37
	Learning Climate	.35
	Leader Effectiveness	.45
	Squad Member Cohesion	.35
	Rule Clarity	.44
	Pride	.40
	Job Motivation	.45
	Mission Motivation	.40
	Morale	.42
Other:	OCT-Career Commitment—Emotional	.36
	Mean Job Knowledge Test Score	.41
	Site Was the Front Gate	-.35
	Site Commander From the Guard	-.39*
	Percentage—Married	.33
	Percentage—Served Overseas Before	.35
	Number—Served in Combat Zone Before	.37
	Late-Career Commitment—Emotional	.60*
	Late-Career Commitment—Practical	.58

Note. The questionnaire item on Career Intent, measured late in the rotation (May 1995), had six responses which asked whether a soldier had or planned to stay in the military beyond or until 20 years, was undecided, or would probably or definitely leave the military before his retirement. The more likely a soldier would stay until retirement, the higher was the response value. Numbers in cells are correlation coefficients; if $r = .33$, $p < .05$ (one tailed); if $r = .45$, $p < .01$. No row entry was made if the correlation was not significant ($r < .33$). $N = 26$ remote sites. * = variable would register as significant in stepwise regression equation explaining variance in Career Intent.

DISCUSSION

The foregoing has been a long walk through the details of an extensive set of data. This section reviews the results and discusses them in terms of the issues and questions that were presented at the beginning

of the chapter. Clearly, the most prominent result was the identification of the mission effect, which impacted soldiers and leaders alike as well as both mixed component and AC battalions. The effect is not new but, rather, is similar to effects found in longitudinal research on the COHORT (Cohesion, Operational Readiness, and Training) personnel system (e.g., Siebold, 1989; Vaitkus, 1994). However, its strength and pervasiveness do invite further investigation of the phenomenon. Perhaps it can be related to Karl von Clausewitz's concept of "friction" in battle. The leaders of Rotation 28 did not come to the mission uninformed. They knew well from previous rotations what to expect, with perhaps the exception of the extra VIP attention. Their plans and preparations appeared very professional. And Rotation 28 accomplished its mission, as did the preceding battalion. Yet the mission had its effect, as it had for the preceding rotation.

Undoubtedly, the strong mission effect suggests that for peacekeeping it may be desirable to revisit such issues as selection, the motivational function of leadership, the optimal personnel replacement system, tour length, compensation and benefits, principles for interacting with local nationals, and force structure and use. Further, it suggests that leaders of limited-threat peacekeeping forces might benefit from training on dealing with the stages of group development and entropy.

The analysis of the data permitted a look at the unique characteristics of Rotation 28. In particular, the results showed that the RC soldiers worked as well, if not better, with RA leaders as they did with leaders from the ARNG. Further, squad member cohesion and job performance were not affected by assigning temporary, just-in-time soldiers from different components or from different states to work together. Personnel turbulence was kept low, and strong cohesion developed quickly during mission train-up. The "rainbow" concept worked.

The longitudinal, panel structure of the research allowed for important progress in the investigation of small unit dynamics. The results showed that the measures used were reliable and stable over time, implying that a static systems analysis would be an appropriate approach at the individual respondent level (see Table 10-8). At the group level, the measures demonstrated more dynamic properties. For example, Rule Clarity at the group level was correlated with mean Squad Member Cohesion at $r = .60$ at the predeployment "Norming" stage but only at $r =$

.50 late in the mission; conversely Leadership Team Cohesion was correlated with mean Squad Member Cohesion only at $r = .51$ before deployment but at a higher $r = .68$ in the late tour "Performing" stage (see Table 10-17). It seems clear that one cannot adequately investigate small-unit dynamics in a piecemeal fashion. Meso-level theories about leadership, cohesion, motivation, or morale must take into account a wide array of variables, over time, as an interacting, nonlinear system. In the current research, there was obviously some common method variance and a general (or "G") attitudinal factor that increased the intercorrelations among the variables. These commonalities need to be reduced in future research so that system parameters and their limits can be more precisely specified.

The results showed some familiar patterns. For example, the motivation of squad members and their squad leader showed some convergence over time (see Table 10-16 and Savell, Teague, & Tremble, 1995). But some new findings were also obtained. One of the most important is that some of the variables (e.g., Mission Motivation) are overdetermined in that different combinations of predictor variables can account for 100% of the variance in (what can be treated as) a dependent variable. This finding is important because it means that the level of the dependent variable might be raised through different avenues; it also means that an effort to increase a dependent variable by one avenue might be offset or hindered by a countervailing decline in another avenue, if not controlled for.

Also, new findings were obtained through the inclusion of a number of "Other" variables into the analysis beyond the basic demographic variables. Especially important were the newly found correlations between the unit dynamics set of variables and the reasons for volunteering, career commitment, and individual dispositions toward new experiences and foreigners. As an exogenous set of variables operating either before or early in group formation, they can function as predictor or moderator variables affecting the dynamics and performance of a unit. They permit an extension of group dynamics theory to wider parameters.

A useful finding was the delineation of variables that did NOT relate to most of the core variables. Of particular note was the finding that whether those at the sites were gaining or losing financially by going on the rotation did not matter to the unit dynamics; this of course is useful

policy information and complements the findings by Lakhani and Abod (in Chapter 13) about financial variables. Most demographic variables were unrelated to the core variables (although they might have been at the very early "Forming" stage, when the variables were not measured). For example, the percentage of soldiers from rural or nonrural backgrounds did not matter. Likewise, the number of soldiers at a site who had been to the Sinai on a previous tour did not have any noticeable impact, and neither did the percentage who had some college education. Thus, while some of the "Other" variables permit an extension of the parameters of group dynamics theory, the lack of significant correlation for other "Other" variables permits a reduction in the number of variables which need to be considered in future research on small unit dynamics.

Theoretically, the major influence on unit dynamics can be attributed to three categories of variables: (1) leader-centric variables—Leader Effectiveness, Leadership Team Cohesion, and Mission Motivation, (2) soldier-centric variables—Squad Member Cohesion and Job Motivation, and (3) organizational culture-centric (command climate-centric) variables—Learning Climate, Rule Clarity, Pride, and Morale. Empirically, as demonstrated by the foregoing results, the category boundaries break down, and the relations among the variables are shifting and overlapping. A strong, purposeful criterion (e.g., externally evaluated and validly measured mission performance), which was not available for this research, is needed to make further progress in future research on small unit dynamics. Nonetheless, there is enough data to suspect that leadership, soldier characteristics, and unit culture are the driving engines that interact and generate the shifting dynamics in units.

The current research produced some very interesting findings about the outcome variables. It is surprising that (see Table 10-20) one can explain 63% of the variance in how groups feel about being in the Sinai by their mean Mission Motivation and the extent to which they "Like Foreigners." This disregards cohesion, pride, leadership, and a number of other possibly relevant variables. It is not surprising, but highly confirmatory, that one can explain 100% of the variance in the percentage of soldiers willing to test for the EIB by a handful of organizational culture and leader-centric variables (see Table 10-21). Of special interest is the finding that among all the variables, the "citizen soldier" cluster (emotional attachment to the Army, motivated by the

mission, and volunteering to serve the country and Army) measured prior to deployment was the only set that was significantly correlated with mean job performance among the remote sites late in the tour (see Table 10-22). Perhaps this finding is the key to the essence of Rotation 28, its small unit dynamics, and its success in the Sinai.

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11

MFO LEADERS: OPPORTUNITIES, CHALLENGES, AND EXPERIENCES

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INTRODUCTION

This chapter concerns the attitudes, unique challenges, opportunities, and experiences of the leaders who participated in the Multinational Force and Observers (MFO) 28th Rotation and were deployed in the Sinai during the period January-July 1995. It is important to understand that the intention was a study of *leaders*, not *leadership*. Our mandate was not to assess who was considered a particularly effective leader, or what behaviors were being demonstrated by more or less effective leaders. Rather, it was the attitudes and experiences of those in leadership roles that were of concern, regardless of whether or not they were effective. Leader effectiveness could easily shape attitudes, and would almost certainly affect interpersonal relationships that would spill over into global assessments of the mission. However, our data collection strategy and credibility would have been compromised by trying to both talk openly with *and* evaluate the leaders.

The following were the primary concerns that were assessed and followed during the course of the mission, including predeployment: (a) How did serving in an MFO mission compare to other assignments, in terms of the challenges of the mission itself; (b) What effect did serving in the MFO have on both the use and the honing of individual soldiering and leadership skills; (c) What, if any, were the challenges associated with integrating Active Component (AC) and Reserve Component (RC) soldiers, noncommissioned officers (NCOs), and officers; (d) What, if any, were the challenges associated with integrating with the forces of

other nations involved in the MFO and with indigenous (primarily Egyptian) populations; and (e) What was the perceived comparability of the MFO experience to other peace**making** roles that have either involved U.S. troops (i.e., Somalia, Haiti) or the troops of other countries (i.e., Bosnia, Cyprus). Certainly, not all of these questions are solely the concern of leaders. However, the opportunity to personally interview many of the decisionmakers and opinionmakers of the battalion provided the needed opening to delve into these issues. We also investigated concerns that would apply to all MFO participants, such as boredom and family issues, as they related specifically to leadership roles. In the course of speaking with and assessing the attitudes and experiences of these leaders, a number of other issues surfaced, each of which will be discussed below.

THE DATA COLLECTIONS

Sample

The sample for each data collection included officers (Battalion Commander [BN CO], Battalion Executive Officer [BN XO], Company Commanders [CO CMDR], Staff Officers for Personnel, Information, Operations, etc. [S-1 through S-5], Company Executive Officers [CO XO], Platoon Leaders [PLT LDR], and Headquarters [HHC] officer staff) and NCOs (Command Sergeant Major [CSM], Company First Sergeants [1SG], Platoon Sergeants [PSG], Squad Leaders [SQD LDR], and HHC support staff) in the 28th Rotation. It should be noted that the 28th Rotation officer cadre was designed to have a 50% AC and 50% RC split. Our sample approximates these totals. The actual numbers for specific data collections varied slightly, and are mentioned below.

The Data Collection Plan and Execution

Data collections took place at three intervals during the battalion's life. The first took place late in predeployment (December 1994) at Fort Bragg, NC, and consisted of interviews with 71 officers and NCOs. The second consisted of 52 interviews taking place early in the deployment (February 1995). At this time, interviews were conducted in classrooms at the Learning Center Building on the U.S. Battalion's South Camp near Sharm-el Sheikh, Egypt. Included among the interviewees were 35 who

had been interviewed at Fort Bragg. Thus, a total of 88 officers and NCOs were interviewed one or more times during the December-February period. The final data collection at South Camp (Sinai) took place late in the deployment (May 1995). This data collection differed from the first two, which consisted solely of narrative responses to interview questions. During the May data collection, questionnaires were used to allow the soldiers to provide their answers in a fashion which could be evaluated empirically and comparatively. However, as the empirical questions were asked in an interview-like setting, the leaders were also provided the opportunity to elaborate verbally on their responses. The May data collection assessed a total of 75 NCOs and officers, 58 of whom had been interviewed previously. Of these, about 58% were NCO as opposed to officers, and about 51% were AC as opposed to RC. Thus, a total of 105 leaders of Rotation 28 participated at one or more points in this research.

Format of Interviews

Interviews lasted 30-120 minutes and were generally conducted in groups of one to four at each interview session. The interviews followed a structured format (Fear, 1958), although opportunities were provided to discuss other concerns and issues both as sidelights to questions and during a "final comments" period at the end of the interviews. A single U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) scientist generally conducted each interview, although on occasion a second ARI psychologist would collaborate. Respondents were asked their opinions on various topics related to leadership experiences. Generally, a respondent would verbally answer the questions one at a time, then rate his/her opinions on a Likert scale specifically designed for each question. Finally, the respondent would write specific comments to explain (i.e., give weight to) the ratings. All questions were placed on a 5-point continuum, with worded anchors only at the extremes. The exception was a question about MFO service's effect on one's military career, which was placed on a 10-point continuum.

The result was two separate sources of data. The first was composed of overall comments by the leadership group, recorded by the interviewer as "group comments." The second data source was composed of the

comments and Likert ratings by each individual about their own perceptions.

THE ROLE OF INDIVIDUAL DIFFERENCES IN LEADER PERCEPTIONS

Any survey of attitudes and perceptions, especially of an organization's climate, culture, or effectiveness, is capable of revealing a mixture of external and objective reality—a situation which is evident to all who interact with that entity—as well as the subjective perceptions of those individuals (Hellriegel & Slocum, 1974). The preconceived notions of individuals, as well as their idiosyncratic predilections to positive or negative affectivity (Watson & Pennebaker, 1989), may cause the same events to be perceived by different persons in radically different ways. In addition, when the events involve interpersonal experiences, such as relations with one's superior, then two leaders in parallel positions may in fact be experiencing the deployment very differently.

We found evidence of consistent individual differences in responding as a result of tracking some individuals comments over the period from December through the May data collection. While fluctuations existed over time, individuals entering the MFO experience with a negative outlook or attitude tended to continue to express negativity throughout the mission. This pattern of negativity (and in the opposite direction, positiveness) prevailed in several individuals throughout all data collections.

Several of these negative patterns can be attributed to a specific person or event exerting a negative influence on an individual or to an individual "getting off on the wrong foot," either of which tended to influence a person's attitudes throughout the tour. An example of this can be seen from several AC individuals who did not volunteer for the mission, but were rather "volunteered." Further, some were extremely upset that their jump status pay was being taken away from them, because this skill was not included in the mission requirements. "Jump pay" was important to many because it was the way soldiers could afford car payments or rent at an off-post apartment. Involuntarily losing this source of income tended to engender negative attitudes toward the MFO

mission, which in turn colored opinions about other MFO-related issues in negative ways.

THE IMPACT OF MFO SERVICE ON LEADERSHIP SKILLS AND CAREERS

MFO participants were split as to whether their experiences were generally beneficial or counterproductive to developing leadership skills and to career progression. For example, MFO experience was considered career enhancing or skill enhancing in the following ways: Some found the experience of leading a wider range of soldiers to be useful. For others, exposure to a war zone (albeit inactive) and to battalion-level work added to their skill repertoires. The high visibility of this rotation, specifically because of the attempted AC/RC integration, was seen as career enhancing.

However, there were also concerns expressed about loss of skills. These included loss of specific skill proficiencies such as jump master and airborne assault skills, as well as various MOS-specific skills. There were also misgivings about loss of infantry and unit-maneuver skills. Concern about loss of leadership skills was particularly acute among those who did not have direct subordinates or those whose subordinates were atypically autonomous. This was the case at remote site observation posts where the squad leader, not the platoon leader or sergeant, is the de facto authority who works without immediate platoon-level oversight.

Some leaders indicated that loss of leadership authority led to loss of skills. This was particularly reflected in comments during the May data collection, when several 1SGs and CO CMDRs complained about their UCMJ (summarized Article 15s) powers having been taken away from them. The resultant loss of power as a leader was somehow seen as a detriment to retaining a high skill level of leadership. Other than the loss of leadership skills, some SQD LDRs minimized concerns about skill erosion, saying that, once soldiers rotated back to CONUS and their former jobs, the only effect would be "getting used to changes in new equipment."

It should be noted that in the combat-oriented U.S. Army, simply being involved in peacekeeping was not seen as being inherently prestigious or as a "plum assignment." Thus, perceived benefits from being part of this rotation had more to do with the high visibility of this rotation, and perhaps with peacekeeping being a "hot" issue, rather than any longstanding allure of peacekeeping. This is in contrast to countries like Canada and Australia. In the latter, there is fierce competition for slots in peacekeeping missions, which are seen as opportunities to earn ribbons (Bonner, 1994). In Australia, there is also jealousy of those who earn spots on these types of missions, jealousy so keen that those who deploy are debriefed about how to defuse such envious animosity. Suffice it to say that at least in the AC, there was little indication that this was considered an envied opportunity.

The May data collection helped put these issues into perspective. In terms of overall perceptions of enhanced or decreased soldiering skills, about 19% of the sample said that MFO service had not eroded their skills at all, while 12% said that their skills had been greatly eroded. Only about 25% marked above the midpoint, such that about three fourths of the sample did not consider skill erosion a concern. Generally, soldiers from AC units ($r = .32$, $p < .001$) felt that their soldiering skills had eroded more.

In terms of leadership skills, about 12% of the sample said that MFO service had not aided their leadership skills at all, while 22% said that their skills had been greatly enhanced. The mean was 3.4 on this 5-point scale. Generally, officers ($r = .39$, $p < .001$) and RC soldiers ($r = .32$, $p < .001$) felt that their leadership skills had been enhanced more. Improved leadership skills were associated with being more busy, less bored, and more autonomous. Moreover, those who said that their leadership skills were enhanced were also more likely to see their own jobs and the MFO mission as necessary, and were also more likely to see their MFO experience as relevant to other potential peacekeeping missions. Finally, as would be expected, perceived skill erosion and perceived enhanced leadership skills had a significant ($r = .43$, $p < .001$) negative relationship.

In terms of impact of their MFO service on their military careers, on a scale ranging from 0 (very negative) to 10 (very positive), the sample as a whole had a mean of 6.45, with only about 20% of participants choosing options lower than 5. Although officers and NCOs did not

differ significantly on this question, RC participants were more likely to see MFO service as career enhancing ($r = .39$, $p < .001$). Those who were busier, less bored, and more autonomous also saw MFO experience as more career enhancing. Similarly, perceptions of career enhancement were positively related to perceived improved leadership skills and to the perceived relevance of MFO to other peacekeeping, and negatively related to perceived erosion of soldiering skills.

LEADER CONCERNS ABOUT MFO SERVICE

Leaders expressed various concerns about their roles in the MFO, both as leaders and as subordinates, and vis-a-vis their own successful functioning.

Concerns in Relation to Subordinates

Inactivity. One concern of leaders, regarding their subordinates, was a function of their own inactivity. As identified in earlier interviews with previous rotations and with the current sample, platoon-level leaders often had insufficient responsibilities to occupy their time. Their squad leaders had unusual degrees of autonomy in their primary roles as remote site observers. Leaders worried that as a result of their own inactivity, they would be spending the deployment bored and directionless; worse, they would end up micromanaging their own subordinates. They shared the same concern about their superiors' potential inactivity and resultant micromanagement, as discussed below.

Autonomy. A related concern was that once subordinates (such as E-6 NCO) had tasted autonomy in the context of their MFO roles, they may have trouble returning to a more diminished, subordinate role upon returning to CONUS or in future missions.

Alcohol abuse. There is evidence of a link between boredom (discussed below) and both drug and alcohol abuse, in the military and in civilian life (Klapp, 1986; Schwartz, Turner, & Peluso, 1973). Leaders were concerned that their subordinates, in the face of the tedium and sensory deprivation of MFO duty, would descend into alcohol abuse. This is not to say that the soldiers' previous occupations (or in the case of

AC soldiers, previous positions) were necessarily interesting or exciting. However, many of the mind-numbing props of modern society—radio, television, portable tape recorders, computers and video games, telephone, and electronic mail that can appear to alleviate tedium (Klapp, 1986)—were not as easily accessible to the MFO soldiers. Although various efforts were made to make excessive drinking more difficult, there was little confidence that external controls would be sufficient to combat the compensatory and time-filling role that alcohol could play.

Religious tension. A chaplain mentioned that there was the concern that as a result of the long hours spent in relative isolation, some devout soldiers would use the time to proselytize, perhaps to the point of pressure or coercion, and thus make other unit members uncomfortable. Part of his role was to protect soldiers from well-intentioned, religious-based harassment by others at remote sites.

Leader Concerns About Themselves

Boredom. Boredom during the drudgery of observation post duty is a concern that affects all participants in the MFO (Segal & Segal, 1993), and to a certain degree affected most members of this rotation (Struck, 1995). What differentiates leader boredom is simply not having enough responsibilities to occupy their time (Harris, Rothberg, Segal, & Segal, 1993). Some of the MFO leaders, most of whom appear highly industrious and achievement-oriented, are essentially underemployed for the duration of the mission. Undemanding, boring roles often cause more stress than do demanding ones (Klapp, 1986; Palmer, 1981). Moreover, by being less busy than subordinates, there is the threat of "losing face" in the eyes of their troops.

The May data collection contained specific questions about being bored during the deployment. About 19% of the sample said that they were almost always bored, and about 19% said that they were almost never bored. Other respondents were split evenly among all options, such that no consensus emerged on this question. Generally, NCOs were more bored than were officers. Boredom was also associated with negative attitudes about one's own accomplishments, about the value of one's own job and the role of the MFO, and about effects of MFO service on one's career.

Our inquiry did not permit in-depth evaluation as to what extent these responses about boredom were a function of each leader's *position*, and to what extent they reflected individual differences. Parallel research (Mael, Kilcullen, Olszewski & White, 1995) conducted on MFO soldiers investigated individual difference variables that have been seen as components of tolerance for boredom; however, it was not conducted with leaders and, in fact, collection of such data with such a small, relatively nonanonymous sample may have impeded the collection of interview data.

Research has shown numerous ways in which individuals differ in their tendency toward boredom (Damrad-Frye & Laird, 1989; Drory, 1982; Farmer & Sundberg, 1986; Fisher, 1993). There may also have been differences in the MFO leaders' ability or motivation to structure their relatively purposeless time in ways that would be more productive. In our predeployment discussions with leaders, we detected three coping strategies advanced by various leaders: The first was to be as busy or busier than in other assignments by helping out wherever possible; for example, by serving as a military instructor for certain skills. The second was to recognize one's diminished personal role and to compensate by doing other types of activities, such as engaging in a more intensive physical fitness regimen or by taking college courses if available. A third strategy was "winging it" or increasing participation in rest and recreation (R&R). Unfortunately, no empirical evidence is available to demonstrate that those who chose the third option had greater difficulties in coping, though logically the first two strategies appear more proactive and productive.

Alcohol. Another concern was that as a result of inactivity-caused boredom, leaders themselves may have been tempted to overuse alcohol, which could be harmful to the leaders, their careers, and their standing with subordinates.

Stress. Job or "mission" stress was not mentioned often in this rotation. Throughout the interview process the overwhelming feeling was captured by one who stated "hey, this is one of the easiest jobs you can get in the Army and if *this* stresses you out, then maybe you're not cut out for the Army." This perspective that the stressors of MFO service were manageable was enunciated most clearly by RC soldiers, perhaps because they wished to demonstrate that they were "as good as the AC."

Nonetheless, some personal stress was mentioned in the context of missing relatives and loved ones at home. Several PSGs felt that their roles expanded to "father figure" because they had to sit down with a number of soldiers and listen to their concerns about missing those back at home. The PSGs expressed their beliefs that RC soldiers were somewhat more susceptible to this type of stress because they were not used to being away from home (Schumm, Bell, Segal, & Rice, Chapter 15).

Other instances of stress seemed to stem from money issues, mainly because recreational travel costs were much higher than expected. This type of stress was compounded by the fact that individuals who could not afford travel were usually stuck with "pulling duty" on South Camp for others who could. By contrast, physical stressors were not a significant problem (Brady, 1995). Very few instances of heat exhaustion were mentioned, and the soldiers kept themselves well hydrated. Soldiers praised the quality of food at South Camp and even commented on the "better than expected" quality of food at the remote sites.

Living conditions were generally good, which helped to keep the spirits of the troops high. An exception was the remote site sleeping arrangements which were, for the most part, somewhat cramped. This produced some discomfort, as the proximity to others violated personal space norms to which American soldiers typically become acculturated (Altman & Chemers, 1980). Lack of privacy, such as was experienced at the remote sites, can itself be stressful (Harris et al., 1993), and persons deprived of privacy often suffer inabilities to relax and loss of self-esteem and individuality (Bloustein, 1964; Fried, 1968; Gavison, 1980).

Midlevel Leader Concerns About Their Own Leaders

Micromanagement. Leaders complained, often bitterly, about being micromanaged by superiors at various higher levels. They attributed this behavior to excessive mistrust by senior leaders, as well as the tendencies of some individuals to be "control freaks." In other cases, they attributed this behavior to bored leaders, some of whom were having their own duties usurped by their senior leaders. Thus, a "trickle-down" effect of micromanagement was perceived, in which a micromanaged and mistrusted leader responded in kind to his or her own subordinates.

Two questions in the May data collection addressed this issue. The first question asked leaders to evaluate the degree of autonomy they had in their MFO position compared to previous assignments. About 43% of the sample said that they had somewhat or much less autonomy, and about 29% saying that they had somewhat or much more. Perceptions of greater autonomy were associated with more positive views of the mission and of the value of MFO service for one's career. In addition, those who felt they had more autonomy were also those who were less bored. It is important to reiterate that without measures of individual temperament, it is not possible to determine whether or to what extent differences in general affect had an impact on differences in perceptions about one's own situation and the efficacy of the MFO deployment.

The second question asked to what degree the leader had felt micromanaged during the MFO deployment. A quarter of the sample said "not at all," 32% said "very much," and another 15% chose the next lower option. Since only 7% chose the midpoint option, it appears that battalion members were split as to how much they had been micromanaged, and that one cannot dismiss micromanagement concerns as simply the complaints of isolated individuals. Moreover, these findings were consistent with interviews with members of a prior rotation in which soldiers complained bitterly about being micromanaged by leaders (both NCO and officer) with "nothing better to do."

As a follow up, those who felt they were at least somewhat micromanaged (i.e., 75% of the sample) were asked whether the micromanagement was "a function of mistrust or negative feelings about your capabilities as a leader." Respondents were equally split on this question, with about 25% interpreting their leader's micromanagement as very much a direct, negative comment about their own capabilities. One can only speculate on the extent to which these perceptions were based on impressions actually conveyed by the leader, or whether they were really incorrect interpretations of actions taken by leaders assuaging their own boredom and felt lack of purpose. Interviews with members of the prior rotation indicated that leaders who were perceived as contributing less, or appeared to be lax in their standards, were also resented by subordinates. Thus, a leader lacking the resources to occupy his/herself elsewhere may have felt compelled to get more involved in subordinates' work to demonstrate his/her active presence, to reduce guilt of not

working as hard as subordinates, or as an antidote to boredom. Any perceived discredit of the subordinates' work may have been unintended. Nevertheless, these results point out the dangers of a trickle-down chain of micromanagement to unit morale.

Time off. Time for travel to various area locales (Israel, Egypt, Cyprus) is a key incentive for many to volunteer for the MFO Sinai mission (Struck, 1995). In addition, travel to regional attractions can provide relief from cultural deprivation, which Harris et al. (1993) identify as one component of boredom in the MFO. However, discretionary decisions by upper leadership led to the cancellation of time off early in the deployment, with the time being used instead for additional training. MFO personnel saw time off and travel as problematic primarily for two reasons. The first was an overwhelming mistrust of the abilities of those responsible for setting up travel. Several examples cited in support of this mistrust were that (1) the travel office was open only 1 day per week and soldiers could not always adjust their work schedules accordingly; (2) travel information was not being disseminated in a timely fashion, if at all; and (3) soldiers ended up paying more for trips than they should have because they felt compelled to bypass the travel personnel and set up their own tours.

Insufficient time also contributed to other travel-related problems. MFO personnel felt that they were not getting enough time off to travel because of the Quick Reaction Force (QRF) rotations and other work-related duties and training added to their busy schedule. While availability of Primary Leadership Development Course (PLDC) and Expert Infantryman Badge (EIB) training were seen as advantageous (some asking for Basic Noncommissioned Officer Course [BNCOC] as well), they also "caused shortages in the number of people needed to pull duty around South Camp." QRF rotations were seen as misaligned, causing platoons to be "taxed too heavily." As a result, both problems "made it impossible to give 1 week off every 6-week rotation for travel" as the soldiers believed they had been promised.

Misconceptions about time off could, at least partially, be traced to the National Guard Bureau's (NGB's) material on volunteering for MFO peacekeeping which included a videotaped production outlining the mission. Using this material, NGB recruiters told the potential volunteers that they would have 3 weeks on site and 3 weeks at South Camp every

6-week tour period. The videotape documents the battalion commander of an earlier rotation commenting that the 3 weeks at South Camp were to be "generally" divided into 1 week of training, 1 week of QRF, and 1 week of travel and R&R. During several recruiting speeches, battalion command for the 28th Rotation also made references to 1 week of R&R per 6-week rotational period. However, according to battalion command, this was never official battalion policy.

Leaders reported that throughout the mission, the "Joes" (enlisted soldiers) resented that their week of promised travel had been replaced by more training. This became a source of extreme frustration, anger, and disappointment for them. They felt they had been "promised" one thing to get them to volunteer and then were treated differently once they were in the Sinai. This led to comments such as, "Wait until next time, nobody will volunteer for this," and "The word is out that they'll (i.e., Army National Guard) lie to you to get you to come here...then when you do, forget it." The sense by soldiers that their trust has been betrayed can be a major stressor for peacekeepers (Gifford, Jackson, & DeShazo, 1993). These comments bespeak a possible failure to provide "realistic job previews" (RJP; Wanous, 1989) to those who volunteered for the MFO. On the other hand, if the disappointments were not intrinsic to the MFO Sinai mission, but were changes instigated at the discretion of the senior leadership, then no RJP would have availed.

Leaders were also disappointed with travel arrangements and policies. The empirical data revealed that only about 28% of leaders had their travel expectations met "very much," while 16% said "not at all," with a mean of only 2.88 on a 5-point scale. Both NCOs and RC were generally more disappointed with actual travel compared to expectations (Oliver, Hayes, & Tiggle, Chapter 12). Dissatisfaction with travel had the potential for adverse effects on morale, or at very least served as another justification for the disaffected to be bitter about their MFO experiences. Thus, those who were more bored, more micromanaged, and less autonomous than usual were all more disappointed with their travel experiences.

Education. As with travel, many soldiers look forward to accelerating their graduation from college by taking courses during their MFO tour of duty. In this sense, American soldiers differ from other peacekeepers; in the Australian Army, for example, few enlisted soldiers

aspire to college degrees (Bonner, 1994). However, in this realm there were also gaps between explicit or implicit promises, resultant expectations, and reality. Specific problems centered on the low level and limited selection of courses; the unanticipated expenses involved in taking courses; the difficulty of those assigned to remote observation posts to complete their course requirements; and upper leadership's shift of focus from "college" education to military training, such as PLDC. These gaps between expectations and reality caused problems of morale among these leaders. Almost 30% of leaders said that their educational expectations were not met "at all," while one quarter said that their expectations were met very much. Generally, NCOs were more likely to be disappointed with educational opportunities, something that may simply be a reflection of the greater number of NCOs who had not yet completed college degrees. Dissatisfaction may also have been related to the specific courses and disciplines available or unavailable for study; previous interviews indicated that universities serving as the vendors of courses differed in their flexibility and ability to address the needs of the MFO soldiers, who were trying to integrate their coursework with responsibilities at different locations.

Interpersonal problems with leaders. The normal and inevitable clashes between some leaders and their own superiors were also a concern for leaders. Several interpersonal problems emerged among officers in the HHC. These problems were related to control and micromanagement. Several individuals believed it came from personality differences. The best example of this would be the problems that surfaced between a midlevel leader in the battalion and various other officers on the HHC staff. Many individuals felt that the midlevel leader's "personality style" was too overwhelming, too overbearing, controlling and manipulative, that everything had to be done "his way or the highway" and that no other input on how things should be done was needed from anyone else. Previous research (Campbell & McCormack, 1957) has shown that authoritarian subordinates tend to be more accepting of this type of leadership. Thus, dissatisfaction with some leaders' style may have been a function of individual differences (Vroom, 1960). Generally, however, research has shown that even in military units, authoritarian leaders are less popular with their subordinates (Hollander, 1954; Ley, 1966).

Several officers stated that they had interpersonal problems with a senior-level leader as well. For the most part, individuals also saw this senior leader as inflexible, overbearing, controlling, and manipulative. Many of this leader's policies were seen as self-serving and/or self-promoting. They did not allow for input from anyone else but one other midlevel leader.

An example of this can be seen in the senior-level leader's policy change that *all* Article 15s and similar punitive actions go through his office for review. Many officers viewed this policy as a direct result of the senior-level leader's "inability to trust anyone to do a good job." Trust is a crucial aspect of organizational life and cohesive unit functioning (Hosmer, 1995; Lewis & Weigert, 1985). Lack of travel opportunities were also seen as the senior-level leader's way of "keeping control over his soldiers" to minimize the chance for soldiers "getting into trouble and making him look bad."

However, one might advance a partial defense for the leadership. They were tasked to lead an unusually visible rotation and also entertain a steady stream of inquisitive VIP guests. They were also under the constant scrutiny of a team of social scientists who were ultimately to report to the Army Chief of Staff. That, in itself, would be cause for the leadership to be under exceptional stress, and perhaps react differently than they would otherwise.

AC/RC COORDINATION

One reason that this rotation was the subject of such interest was that it served as a laboratory for observing the feasibility of smooth integration of AC and RC soldiers. Originally, there were concerns about how the RC soldiers would be perceived by their AC peers. Specific concerns focused on RC soldier fitness, quality, and experience. There was also some concern about RC and AC soldiers breaking off into mutually exclusive cliques.

It is noteworthy that participants, especially those in upper leadership, consistently downplayed any hint of problems in this area during the December predeployment interviews. They also asserted that skill and performance were more important than AC/RC designation

when deciding who was deserving of respect and trust. They also expressed the view that the Infantry Leaders Course (ILC) and MFO training promoted group cohesion during predeployment (Salter, Fober, Pleban, & Valentine, Chapter 9). The sole exception was that AC NCOs expressed reservations about being rated by RC NCOs, whom they viewed as insufficiently experienced to be having such strong impact on the career progression of the AC soldiers.

However, over the course of the deployment, some evidence of changes in the AC/RC relationship emerged. Group development or group cohesiveness occurs as a function of similarity of attitudes, opinions, values, and behaviors among group members (Bennis & Shepard, 1965; Siebold, Chapter 10; Tuckman, 1965). This, in turn, can effect the perceptions of group members (Cartwright, 1968). Group cohesion can lead to ethnocentrism and in-group favoritism, which in turn can lead to exaggeration of differences between one's own group and outgroup members (Ashforth & Mael, 1989; Brown, 1986; Locksley, Ortiz, & Hepburn, 1980; Tajfel & Turner, 1986; Turner, 1984). Perceived inequity ("us" against "them") may also be experienced at the group level, and evidence of preferential treatment may be sought or highlighted.

This appeared to become an issue during the MFO deployment. AC soldiers felt that RC soldiers were receiving preferential treatment, such as being allowed to "get away with" behaviors that would have been censured if exhibited by AC soldiers. In addition, AC/RC social segregation eventually became evident to some. Generally, mutual dislike was not a concern; rather, the two groups were seen as having different life and career concerns, and therefore less in common. However, these differences did cause a certain amount of friction and animosity between the groups, which spilled over on some occasions. For example, there were several reported cases of "rough-housing" between AC and RC opponents during the officers' sporting activities (e.g., volleyball, softball games, and soccer matches). Several extreme cases resulted in physical injury, which included a broken leg, broken arm, and a torn Achilles tendon.

Two points must be kept in mind: First, most of the focus in both our work and that of others was on whether AC personnel had any problem with the performance and behavior of RC soldiers. Consequently, little

attention was paid to the RC soldiers' perceptions of their AC peers. Second, the perception of some leaders that many of the AC participants in the MFO were not topflight representatives of the AC may have colored some of the reporting of the RC having been "just as good."

In terms of skills, some AC leaders did suggest that some roles and assignments be reserved for AC personnel. An example was some of the supply and requisition work needing to be done prior to the beginning of the rotation. It was felt that an active duty leader might be more familiar with protocol and how to unofficially "make things happen." Since one of the expressed frustrations of the battalion members was that their startup was from ground zero—without any telephones, computers, etc.—there was a real preference for key personnel who could get things started quickly.

Another issue of concern was ratings across the two groups. Specifically, AC personnel were concerned about being rated by what they viewed as relatively inexperienced RC NCOs. Our impression was that another dynamic was at play: A common perception is that it is typical in the active duty Army for leaders to receive inflated ratings, such that the norm is to be rated as exceptional. Any rating that was originally designed to denote "merely" excellent or very good performance is now seen as a de facto "kiss of death" for advancement. This situation is no different from that in other organizations, in which political and career considerations impinge upon and often override the stated purposes of performance appraisal (Longenecker, Gioia, & Sims, 1987). However, some of the leaders claimed that the same culture of hyperinflated ratings does not exist in the RC, and that a wider range of the rating scale is used. Thus, AC raters may have been concerned that RC raters would use the Officer's Evaluative Rating (OER) or other rating forms as written, and unwittingly give them the equivalent of a bad rating, even though the RC rater may have felt that the ratee was quite capable. Under those conditions, AC soldiers were leery of trusting their careers to these raters and may have felt that this was indicative of "inexperience." Parallel to this phenomenon was a senior leader's acknowledgment during an interview that he used a wider range of scores to rate RC; in doing so, he may have understood that the damage would be lesser in following the ratings as they were meant to be used.

INTERACTION WITH OTHER NATIONALITIES

The U.S. Army, at the suggestion of social scientists, has accelerated cultural sensitivity training and foreign language training for soldiers deploying to peacekeeping missions (Birch, 1995). Based on interviews with both a prior rotation and other countries' peacekeepers, we felt it necessary to inquire about tensions or friction involving members of other nationalities. This concern was made up of two separate issues: The first involved interactions with indigenous peoples, in this case Egyptians from nearby villages, as well as workers or vacationers at areas popular with soldiers for R&R. The second related to interactions with peacekeepers of other nationalities. For nations with longstanding involvement in truly integrated peacekeeping missions, these are serious concerns. For example, Australian soldiers, who take a very dim view of homosexuality, are sometimes paired with soldiers from other countries who deem homosexuality not only acceptable but an entitlement for their service in a host country (Bonner, 1994). Nationalities with longstanding mutual antipathy are sometimes paired in peacekeeping missions.

In predeployment interviews, the leaders downplayed these concerns. Unlike other peacekeeping settings, in which soldiers had to deal with differing values related to sexual mores or the sacredness of life, this was not a factor in the Sinai. This MFO mission did not involve active daily interaction with local nationals, certainly not to the extent that was experienced in Somalia, Haiti, or other locations involving peacekeepers from other nations (Gifford et al., 1993). The second concern, about interactions with other peacekeepers, did not materialize. Compared to other missions, in which several Western peacekeeper units have worked closely with soldiers from many different nations, there were virtually no joint roles shared by Americans and other MFO Sinai members. The United States Battalion (USBATT) operates all checkpoints and observation posts (OP) in the southern sector of the Sinai and its main outpost (South Camp) is in Sharm-el Sheikh, while the Fijian and Columbian Battalions operate the northern sectors and are located at North Camp in El Gorah. Interactions with other nationals involved in MFO (from Italy, the Netherlands, and Fiji) were primarily social, if at all. Potential concerns to which we were alerted included possible exposure to ethically or morally offensive or degrading behavior that might even involve harming others. Such behavior is likely to be

seen as reprehensible from the perspective of an American soldier, but not from the perspective of the perpetrators. A special concern centered around possible altercations during R&R periods. In terms of tolerating the behavior and values of other nationals, some AC soldiers expected their RC peers, some of whom had never left the United States (or even their own states), to experience the greatest "culture shock."

In terms of empirical data, over 50% of the sample said that they were not bothered at all by the behavior or values of local people. At the other extreme, about one eighth of the sample said that they were bothered "very much by the behavior or values of indigenous peoples." Several individuals expressed concerns about the way locals seem "to beg all the time and ask for handouts." Irritation with the indigenous population related to their laziness ("... they won't do anything for themselves, they try to get us to do it for them"); cleanliness ("... garbage is everywhere and they never pick it up"); verbal abuse ("... after they realized we weren't going to give them anything they stood outside our OP and called us names and said things like, 'Yankee, go home' and 'Hurray for Oklahoma City'); and locals' prejudice toward U.S. soldiers ("... at night they don't let us into their clubs on the boardwalk unless we have a date, and most of the hotels won't let us on their property"). These negative feelings were compounded by the tourist economy around the area of Sharm-el Sheikh ("... they want your money, but if you aren't buying anything they'll treat you like dirt. They treat the tourists from other countries a thousand times better").

Some of the negative feelings spilled over into verbal retaliation by the U.S. soldiers. The term "Gyppos" was used as a negative slur about Egyptian nationals. Interviews with members of previous rotations produced similar comments, indicating that distaste for standards of cleanliness and sanitation were fairly universal, though there was also some displeasure about honesty and ways of doing business in the host country. A burgeoning area of research into individual differences in cross-cultural orientation and openness or tolerance for other cultures (Caligiuri, 1994; Evans, Sculli, & Yau, 1987; Mendenhall, Dunbar, & Oddou, 1987) may help explain the range of reactions to indigenous people by the MFO soldiers.

In our first interview prior to deployment, MFO leadership did express a fair amount of concern over the possibility of U.S. soldiers

offending the locals and getting into trouble outside of South Camp. However, no substantial evidence of such problems was brought to our attention beyond a minor "verbal altercation" between one young, male soldier and a local female. Comments by leaders were very positive in this area with most reporting that the soldiers were exceptionally well behaved and very mature in their interactions with locals.

FAMILY ISSUES AS LEADERSHIP CONCERNS

The concerns of MFO soldiers and their families about their relationships, and about the disruption of regular family roles, are covered in depth elsewhere in this volume (Schumm, et al., Chapter 15). Here, we touch only on some of the concerns that emerged during the predeployment period and that may relate somewhat to leadership roles.

Family support. One stated concern was the degree to which a soldier's spouse (typically a wife, although conceivably a girlfriend or husband) was accepted by other spouses, in the sense of being kept informed of both the soldiers' welfare and the activities of spouses. The leadership issue surrounds the role of the battalion leaders' wives as de facto leaders of spouse-support networks, regardless of their capabilities for the role. A related complaint was a degree of perceived cronyism among the wives of the leadership cadre. Although similar concerns were expressed in previous rotations as well, they took on a different tone in this case both because of the geographical dispersion of the RC wives and the fact that the RC wives may have felt an even larger gap between themselves and "career spouses." As a hypothetical example, an RC leader from the Maryland National Guard may have left a spouse behind in Maryland in the community where she grew up, with a circle of friends that did not include other military wives. Moreover, the family home could be 50 or more miles away from the location of the nearest meeting place for interaction with other battalion spouses. This could increase feelings of isolation, both in terms of being outside of (or excluded from) the information loop, as well as not having contact with women in similar straits. It is noteworthy that in both previous and current interviews, there were sharp discrepancies between leader-subordinate evaluations of support group performance. Upper leaders were full of praise for the wives who were running support groups, citing the many activities that

they were involved in. From the perspective of more junior battalion members, however, the activities were poorly advertised or were irrelevant to the real needs of those who were physically isolated. Those who were unaccustomed to managing a household without the relief of a spouse, or dealing with fears unknown in civilian circles, needed one-to-one support more than social events.

Adultery and battalion values. In the predeployment phase, we detected a quizzical approach to concerns about nonmarital sexual interaction. Literature disseminated to the soldiers strongly advocated refraining from adultery and even nonmarital sex, both for health and family reasons. However, this was at odds with the stated expectations of the soldiers, that a highlight of their R&R experiences would involve sexual adventures. In some ways, the literature actually irritated the soldiers in that it was also sent to spouses, raising their suspicions and concerns. Preliminary to February's data collection, we were assured by the mental health officer that there was much less adultery occurring in the MFO Sinai than in other peacekeeping missions. Therefore, we did not formally revisit this issue during the deployment data collections.

A model depicting the interrelationship of the various leader concerns and outcomes, as well as the situational and organizational influences on these concerns, is shown in Figure 11-1.

CONCLUSION

Several major findings emerged from our interviews and empirical research. First, integration of willing and unwilling participants is a far greater concern than AC/RC integration. Persons whose personalities or unwillingness to be in the MFO make them unhappy or dissatisfied often take a dim view of the mission, including its usefulness and raison d'etre. Beyond that, they are *more* likely to be bored, to feel micromanaged, and be unhappy with accommodations.

Second, micromanagement, combined with not enough work to do, jointly lead to role ambiguity, frustration, and "trickle-down" micromanagement lower into the battalion. Questions must be raised about whether Sinai missions require the same number of leadership levels as other missions. Some may argue that to send the battalion

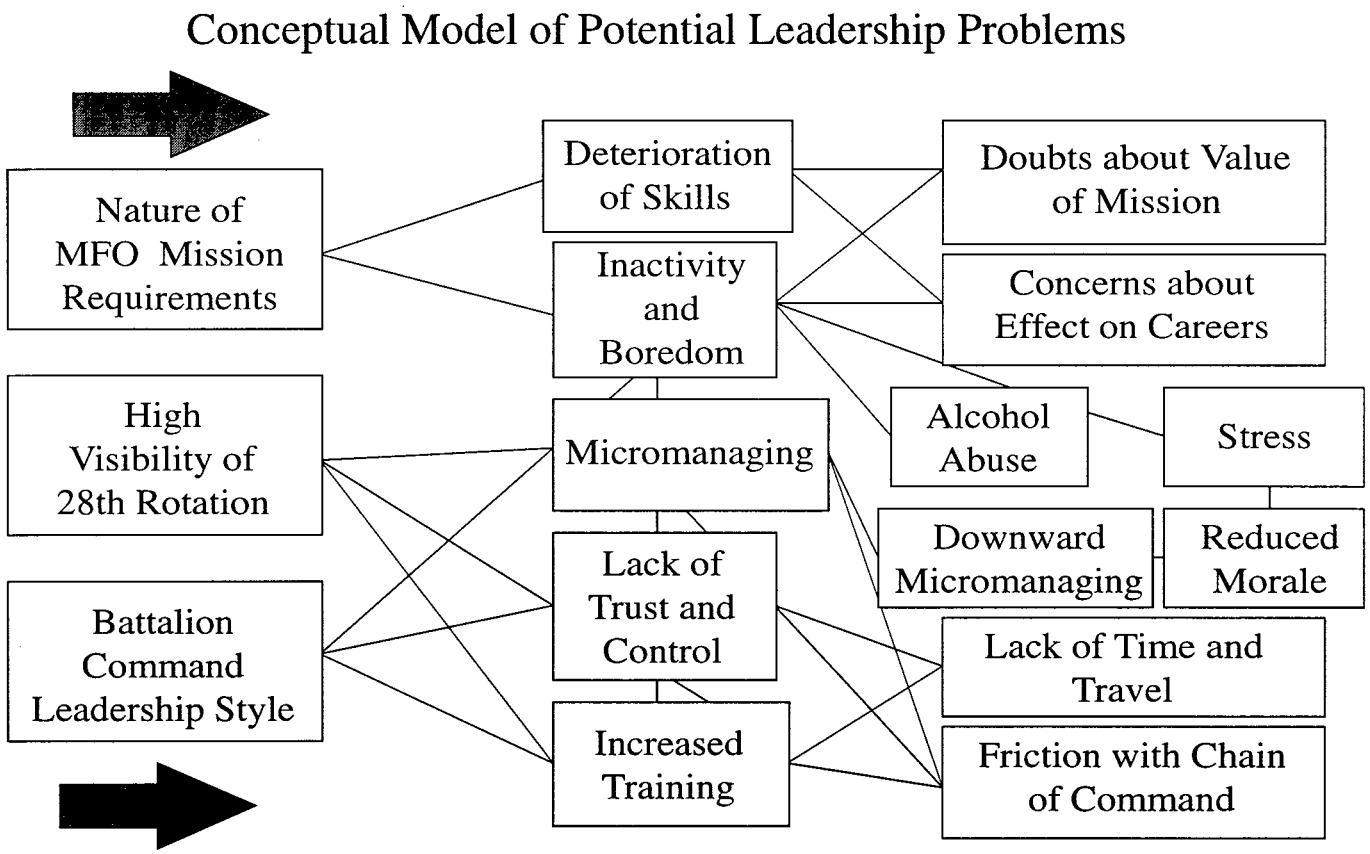

Figure 11-1. Model of situational and organizational influences, leader concerns, and outcomes.

without platoon leaders, for example, may cause additional problems once the units finish the deployment and members return to more traditional roles. This concern is granted, but the need for an alternative solution is no less pressing.

Third, policy changes that negate expectations or actual commitments, especially if not communicated properly, destroy morale. It might be easy to ridicule the "expectations" of soldiers for travel or education, arguing that they have joined the MFO to prevent war, not to see the world. This, however, does not change the fact that MFO work involves great tedium for many, as well as loss of certain military skills, and that travel and education serve to some degree as compensatory remuneration. Also, if people volunteered based on unfulfilled premises, they cannot be blamed for feeling betrayed. If problems with travel and education are foreseen, providing a more realistic job preview might still be preferable.

Fourth, MFO experiences probably do *not* generalize to other potential peace**making** roles for U.S. forces. The lack of coordination with other national forces, the absence of daily contact with indigenous populations, and the special soldier attributes needed to successfully perform this mission all limit generalizability. The unique attributes needed for success in MFO, and how they differ from those needed in other peacekeeping missions, are addressed in Mael et al. (1995). On the other hand, we are convinced that MFO "lessons learned" can have some relevance for future volunteer, composite forces, at least in situations and deployments with low expectations of combat.

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12

SOLDIERS' PERCEPTIONS OF DEPLOYMENT EFFECTS

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INTRODUCTION

The purpose of this chapter is to document middeployment findings for the life course variables and, where appropriate, to compare the results to soldiers' perceptions and attitudes before deployment. Chapter 6 contains a summary of the deployees' predeployment status on the life course variables covered in this chapter. Oliver, Hayes, and Tiggle (in press) contains a more complete account of the findings reported in this chapter.

Research Questions

The questions to be explored in this chapter are:

1. Current effects of deployment on soldiers' lives. At this point during the deployment, what effects do soldiers perceive the deployment has had on various aspects of their lives? The specific aspects of their lives we asked about were:

- physical health
- emotional well-being
- civilian job/career
- military career

- marriage
- adjustment to spouse upon return
- children
- likelihood of volunteering for future operations
- likelihood of remaining in the military

2. *Middeployment status.* At this middeployment point, what are soldiers' career intentions, educational aspirations, and organizational commitment?

3. *Comparison with predeployment status.* How do the effects anticipated by the soldiers before deployment compare with the effects they reported during deployment? How do soldiers' attitudes toward careers, education, and travel, and the Army organization compare with the attitudes they had before deployment?

METHOD

Sample

The sample for this research comprises the 412 soldiers who completed a usable survey. Of these, 283 identified themselves as Reserve Component (RC) soldiers and 69 as Active Component (AC) soldiers. The RC subjects were from Army National Guard (ARNG) units and from the Individual Ready Reserve (IRR).

Measures

Middeployment life course variables. Chapter 6 and Oliver, Tiggle, and Hayes (in press) described how we operationalized the life course variables for the surveys administered before deployment. The findings we present here are based on data from the Opinions questionnaire, administered to deployees in the Sinai in May 1995. This middeployment survey contained the same variables as in the earlier survey, although the wording in the Opinions survey was in the present tense rather than the future tense as in the predeployment questionnaire.

See Oliver, Hayes, & Tiggle, (in press) for a copy of the Opinions questionnaire.

Additional items. Three items were added for the middeployment survey. The additional items related to civilian job satisfaction, military job satisfaction, and the respondent's expectations concerning the effect of the deployment on an RC soldier's chances of going into the Regular Army (RA). The measures of job satisfaction were based on research in the industrial/organizational psychology literature (e.g., Cook, Hepworth, Wall, & Warr, 1981; Seashore, Lawler, Mirvis, & Camman, 1982). Comments from soldiers and interviews with their wives (conducted by other researchers and reported elsewhere) led to the inclusion of the item concerning soldier expectations of getting into the RA as a result of participating in the deployment. These three items were also included in the Opinions questionnaire administered during deployment (Oliver, Hayes, & Tiggle, in press).

Procedure

U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) researchers administered the Opinions questionnaire (plus other instruments) to groups of soldiers in the Sinai during May 1995. The procedure was similar to that followed in the predeployment data collections conducted at Fort Bragg in 1994.

Analyses

The analyses for the research reported here involve middeployment data. Results are generally reported for the entire sample. Where appropriate and of interest, results are broken out by component (RC and AC) or by rank (junior enlisted, noncommissioned officers [NCOs], and officers). We also present some comparisons of data collected before and during the deployment. We have presented the predeployment data in Chapter 6 and in Oliver, Tiggle, & Hayes (in press). This chapter is based on data reported in Oliver, Hayes, and Tiggle (in press).

Use of Comments to Clarify Results

To clarify the results contained in this chapter, we include comments made by soldiers on the surveys they completed during the deployment.[1] That the overwhelming majority of these comments were negative in tone helps explain some of the results that we present.

In considering the results, we need to note that ARI came in for its share of criticism in the comments. Completion of surveys was considered an onerous task and an invasion of privacy. As one soldier sarcastically commented, "Thanks for holding another survey on my day off in a hot gym, wasting my time and prying into my personal life." The opinion that the surveys would change nothing was reflected in several dozen of the comments. Two examples: "I wonder if these ARI questions are really going to do any good. Especially negative comments or will those 'accidentally' be destroyed?" and "I honestly feel that these surveys are pointless. We've all given thought-out, legitimate complaints multiple times with no change."

Removal of Cases From Database

We have explained in Oliver, Hayes, and Tiggle (in press) how we developed decision rules for removing questionable cases. (See Appendix B of that report for the specific rules.) Although removing these cases did not appreciably change the results, we feel that the data reported here is more accurate because of our having done so. Our decision to remove questionable cases is supported by a number of the comments. For example, one respondent wrote: "Look, you're never going to get accurate information on these surveys. The way they are given encourages people to want to get them done fast. When people do these fast, they don't care what they mark. I heard a guy singing the alphabet using only ABCDE. He was done with the survey in 10 minutes. You tell me that's accurate? Most of the soldiers consider ARI surveys to be an inconvenience. So, why try to be accurate they say. Who cares, they say. Nobody has any good answers for them."[2]

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1 The appendix of this book contains a summary of 693 comments classified into six major categories.
2 One of the decision rules we developed was designed to eliminate cases that had answer sheets showing a repetitive pattern such as A-B-C-D-E.

FINDINGS

Middeployment Perceived Effects

Before they deployed, soldiers were asked to indicate how they expected various aspects of their lives to change as a result of the deployment to the Sinai. During the May 1995 data collection (reported here), soldiers were asked what these effects were at this later point in time. Table 1 contains means and standard deviations for soldier perceptions of deployment effects on various aspects of their lives both by component and for the entire sample. Note that the means represent a 5-point scale.

The pattern of effects as perceived by the RC and AC soldiers during the deployment was very similar. The perceived effects related to marriage, adjustment, and children were essentially the same for both RC and AC, although the means on the other effects were lower for both groups than they had been before deployment. The largest change in means from before the deployment to during the deployment was in the soldiers' willingness to volunteer for future similar operations. The overall mean for this effect fell from 3.91 to 2.63. Willingness to stay in the Army also dropped from 3.96 to 3.12. Another sizable drop occurred in effects of the deployment on physical health (from 4.50 to 3.58) and on military career (from 4.39 to 3.47). Sizable declines on these variables occurred for both components.

Table 12-1 shows that the component pattern for perceived effects during deployment was similar to the one we had noted in the predeployment data for expected effects. Before deployment, we found significant differences between components on five variables; during deployment, we found significant differences on four of those five variables. Mean ratings for military career effects were 3.63 and 2.91 for the RC and AC groups, respectively. On the future volunteering item, the means were 2.81 for the RC and 1.99 for the AC. We found smaller but still significant differences on physical health and on staying in the Army, with RC respondents rating these effects more positively.

As can be seen in Table 12-2, differences among ranks tended to be small even when statistically significant. The largest rank difference was

Table 12-1

Middeployment Effects for All Soldiers by Component

Aspects	All soldiers			Reserve Component			Active Component			
	N	Mean	(SD)[a]	*N*	Mean	(SD)[a]	*N*	Mean	Differences	(SD)[a]
Physical health	422	3.58	(1.03)	293	3.67	(1.02)	70	3.30	(1.07)	R>A
Emotional well-being	397	3.82	(.92)	269	3.78	(.90)	70	3.84	(. 90)	R=A
Civilian job/career	330	2.50	(1.09)	269	2.46	(1.10)	17	2.94	(.66)	R=A
Military career	419	3.47	(1.08)	290	3.63	(1.05)	70	2.91	(1.05)	R>A($P < .0001$)
Marriage	346	3.03	(1.21)	234	3.09	(1.19)	60	3.07	(1.21)	R=A
Adjusting upon return	301	3.33	(1.19)	204	3.24	(1.20)	53	3.62	(1.21)	A>R
Children	233	3.06	(1.04)	152	3.01	(1.02)	41	3.22	(1.11)	R=A
Volunteering in future	414	2.63	(1.41)	288	2.81	(1.39)	67	1.99	(1.33)	R>A($p < .0001$)
Willingness to to stay in Army	411	3.12	(1.21)	293	3.19	(1.24)	62	2.82	(1.12)	R>A

[a]Rated on a 5-point scale ranging from 1 = very negative effect to 5 = very positive effect.
[b]The sum of R and A soldiers does not equal the total because some soldiers did not identify their component.

for the adjustment variable. Officers (mean = 4.19) and NCOs (mean = 3.53) were significantly more positive than junior enlisted (mean = 3.14). Junior enlisted respondents, on the other hand, perceived significantly more positive effects on their military careers than the other two rank groups and also were more willing to volunteer in the future. Although statistically significant, these differences were rather small.

Middeployment Attitudes

This section deals with middeployment attitudes related to organizational commitment, how soldiers felt about being in the Sinai, and job satisfaction. Table 12-3 contains means and standard deviations for these variables for the entire sample, and by component, and Table 12-4 contains similar data for the three rank groups. As in Tables 12-1 and 12-2, these means represent a 5-point scale.

Organizational commitment. The data in Table 12-3 represent a small drop in affective commitment from before the deployment (3.48) to during deployment (3.05). Continuance commitment stayed at essentially the same level (from 2.76 to 2.51). There was a steep decline in attitudes toward being in the Sinai. Ratings on this variable fell from 4.69 to 3.01. There were no marked component or rank differences on either the organizational commitment dimensions or feelings about the Sinai, except for the generally more positive officer ratings.

Job satisfaction. We did not measure job satisfaction before deployment, so we cannot compare perceptions of either military job satisfaction or civilian job satisfaction over time. There were no notable differences between components on these variables except for a higher AC mean (4.00) than RC mean (3.22) on civilian job satisfaction. In accordance with the typical pattern, officers reported higher military job satisfaction than did enlisted personnel.

Middeployment Career and Education Effects

Tables 12-5 and 12-6 contain data relating to career and education effects perceived by the respondents during deployment. For these nominal variables, the data are presented in terms of percentages. Table

Table 12-2

Middeployment Effects by Rank

	Rank									
	Junior enlisted			NCOs			Officers			
Aspects	*N*	Mean	(SD)[a]	*N*	Mean	(SD)[a]	*N*	Mean	(SD)	Differences
Physical health	232	3.63	(1.00)	130	3.51	(.99)	27	3.52	(1.34)	J=N=O
Emotional well-being	215	3.82	(.93)	127	3.80	(.92)	25	3.76	(.83)	J=N=O
Civilian job/career	208	2.47	(1.14)	79	2.49	(1.01)	14	2.64	(1.28)	J=N=O
Military career	227	3.67	(1.00)	131	3.13	(1.11)	27	3.56	(1.15)	J>N&O
Marriage	189	3.14	(1.23)	108	2.94	(1.15)	20	2.80	(1.20)	J=N=O
Adjusting quickly upon return	159	3.14	(1.16)	100	3.53	(1.16)	16	4.19	(1.05)	O&N>J
Children	117	3.08	(1.06)	81	3.05	(1.00)	10	3.00	(1.41)	J=N=O
Volunteering in future	227	2.77	(1.36)	129	2.36	(1.37)	25	2.76	(1.51)	J=O>N
Willingness to stay in the Army	230	3.20	(1.18)	122	2.98	(1.19)	25	3.48	(1.08)	J=O=N

[a] Rated on a 5-point scale ranging from 1 = very negative effect to 5 = very positive effect.
[b] J=Junior enlisted; N=NCOs; O=Officers. Differences significant at $p < .05$.

Table 12-3

Middeployment Attitudes for All Soldiers and by Component

	Component									
	All soldiers			Reserve			Active			
Attitude	*N*	Mean	(SD)	*N*	Mean	(SD)	*N*	Mean	(SD)	Differences
Affective commitment	423	3.05	.70	294	3.00	.74	71	3.19	.53	A>R
Continuance commitment	423	2.51	.86	292	2.44	.85	71	2.68	.83	A>R
Civilian job satisfaction	306	3.24	1.27	258	3.22	1.26	6	4.00	.63	A=R
Military job satisfaction	424	3.04	1.28	293	3.04	1.32	71	3.04	1.21	A=R
How feel about Sinai deployment	425	3.01	1.27	294	3.06	1.32	71	2.80	1.18	A=R

Table 12-4

Middeployment Attitudes by Rank

	Component									
	Junior enlisted			NCOs			Officers			
Attitude	*N*	Mean	(SD)	*N*	Mean	(SD)	*N*	Mean	(SD)	Differences
Affective commitment	231	2.93	.68	131	3.16	.66	27	3.48	.72	O&NCO>J
Continuance commitment	230	2.44	.86	132	2.63	.87	27	2.36	.80	O=NCO=J
Civilian job satisfaction	198	3.28	1.24	67	3.18	1.32	12	2.75	1.28	O=NCO=J
Military job satisfaction	231	2.97	1.29	132	2.95	1.27	27	3.81	1.18	O>NCO&J
How feel about Sinai deployment	232	2.94	1.20	132	2.93	1.38	27	3.89	1.05	O>NCO&J

Table 12-5

Middeployment Career and Education Effects by Component

	Component		
	All soldiers	Active	Reserve
Career intent			
Stay until/beyond 20 years	44.7%	52.1%	42.9%
Undecided	34.1	26.8	34.7
Retire before 20 years	21.2	21.1	22.4
Deployment good for career			
Yes	55.8	29.2	62.9
No	20.0	43.1	14.4
Not sure	24.3	27.7	22.7
Effect of deployment on joining RA			
No effect on RC getting into RA	10.5	11.9	10.0
Increases chances of RC getting into RA	19.4	11.9	21.6
Definitely let RC into RA	14.1	7.5	15.5
Didn't know effect for RC	56.0	68.7	52.9
Taking courses during deployment			
Yes	53.3	47.1	55.0
No	46.7	52.9	45.0
Traveling during deployment			
Yes	88.1	79.7	90.6
No	11.9	20.3	9.4

12-5 shows results for the entire sample and by component. Table 12-6 contains data for rank groups.

Career intentions. The pattern of middeployment career intentions shifted somewhat from the predeployment pattern. Although the percentage of undecided remained about the same, a larger proportion of all soldiers (21%) intended to retire before 20 years than they had before deployment (12%). A somewhat smaller percentage of the entire sample

Table 12-6

Middeployment Career and Education Effects by Rank

	Rank		
	Junior enlisted	NCOs	Officers
Career intent			
Stay until/beyond 20 years	37.1%	56.8%	51.9%
Undecided	40.1	25.8	29.6
Retire before 20 years	22.8	17.4	18.5
Deployment good for career			
Yes	63.6	40.8	46.2
No	15.0	30.8	11.5
Not sure	21.4	28.3	42.3
Effect of deployment on joining RA			
No effect on RC getting into RA	6.6	10.2	29.6
Increases chances of RC getting into RA	22.7	16.4	11.1
Definitely let RC into RA	16.2	11.7	3.7
Didn't know effect for RC	54.6	61.7	55.6
Taking courses during deployment			
Yes	53.6	57.9	18.5
No	46.4	42.1	81.5
Traveling during deployment			
Yes	87.6	86.7	96.3
No	12.4	13.3	3.7

(45%) intended to stay until or beyond 20 years than they had before deployment (56%).

In Chapter 13, Lakhani and Abod have reported that "career commitment" (which he defined as intent to stay in the military for at least 20 years) became more similar across components as time passed. Before deployment, significantly more RC soldiers than AC soldiers planned a career of 20 years or more in the military. During deployment, this difference was no longer significant.

Benefit to careers. There were differences among groups in assessing the effect of the deployment on their careers. Less than one third (29%) of the AC soldiers felt the deployment was good for their

careers, and close to half (43%) felt it was not good for their careers. The RC soldiers, on the other hand, were more positive about the deployment's effect on their careers: 63% felt it was good and 14% felt it was not good for their careers. For rank groups, more junior enlisted rated the deployment as good for their careers (64%) than did either NCOs (41%) or officers (46%).

Chances of getting into Regular Army. The item asking about the effect of the deployment on an RC soldier's chances of getting into the RA was not administered before deployment, so we cannot make any comparisons over time for this item. More than half (56%) the entire sample reported that they did not know what effect the deployment would have. Table 12-5 shows that almost twice the proportion of the RC (37%) than AC (19%) believed that the deployment would either increase a soldier's chances or definitely allow the soldier to get into the RA. As can be seen in Table 12-6, the proportion of junior enlisted expressing this opinion was larger (39%) than either NCOs (28%) or officers (15%).

Travel and educational courses. The proportion of soldiers who reported traveling and taking educational courses during deployment was less than the proportion planning to do so before deployment. Of the 95% of the entire sample who had expected to travel, 88% reported having actually done so. Of the 82% of soldiers overall who had planned to take courses, 53% reported having done so during the deployment. The percentage of decline was roughly equivalent across both components and rank groups.

DISCUSSION

Specific Perceived Effects

In general, the deployment effects soldiers reported for various aspects of their lives were less positive than they had anticipated before the deployment. This finding is a common phenomenon—soldiers just beginning a new Army experience (deployment, new unit, etc.) tend to be enthusiastic and positive. The initial enthusiasm, however, usually wanes as time goes on and reality sets in. ARI research in a variety of areas has

demonstrated this phenomenon repeatedly. Hence we consider the overall drop from before to during the deployment an expected result.

But we noted declines that seemed more marked than we would expect for some of the effects. In fact, we would characterize some of these declines as precipitous. For example, there were substantially lower means during the deployment for willingness to volunteer for similar assignments in the future and for willingness to stay in the Army. This finding suggests disappointment or disillusion with the Army with respect to the deployment experience. Among the comments made by soldiers on their surveys we found many that reflected considerable disappointment and disillusion with the deployment. One individual summed it up thusly: "When I first came on this, I was very excited. But now I have to say that I am very disappointed in this mission." Many of these disappointments dealt with issues such as broken promises ("lying" was a frequently used term), being treated like juveniles, and lack of communication.

Perceptions of physical health were also much less positive than soldiers had expected before deployment. We speculate that perhaps expectations for physical activity and exercise were not met in the actual deployment situation. However, we did not find any comments that related to this particular effect.

Although the drops in ratings were precipitous for both components, RC soldiers were more positive about some deployment effects than the AC soldiers. Only on adjustment did AC respondents give significantly higher ratings than those from the RC. In addition to effects on their physical well-being which we noted previously, RC soldiers were significantly more positive about effects on their military career, their willingness to volunteer in the future, and their willingness to stay in the Army than were the AC soldiers. We believe the more positive perceptions of RC soldiers of these effects and, in particular, military careers and assignments may be related to their volunteer status. Because they had chosen to go on the deployment, the deployment must have had positive effects for them.

There is also evidence that AC leaders perceived more negative deployment effects than did the RC leaders. In the interviews with leaders (squad leaders and higher) described in Chapter 11, Mael and

Palmer reported that the AC leaders felt their soldiering skills had eroded more than their RC counterparts did. If this was the case, we are not surprised that these AC soldiers would rate deployment effects on their careers more negatively.

Although most comments were negative in nature, a few were positive. Three comments, for example, noted positive effects for the respondents' careers ("I feel that the mission will look good on my 201 file.")

Middeployment Attitudes

Organizational commitment (affective dimension only) dropped slightly and feelings about the Sinai deployment were sharply less positive during the deployment than they had been before the deployment. We found no noticeable group differences except for the generally more positive attitudes of officers. Officers also reported higher levels of military job satisfaction than did the other rank groups.

Middeployment Career and Education Effects

There was a shift in career intent patterns from before the deployment to during deployment. In general, soldiers became less interested in staying in the Army until or beyond 20 years, and more soldiers felt they would retire before 20 years. This pattern was observed for all groups. If this finding is related to the deployment experience, it may reflect unmet expectations or disillusionment with the deployment. Some of the comments were directly related to the retention issue. ("It is because of this mission that I have decided to exit military service.")

Although the career intent pattern seemed similar across groups, the item asking if the deployment was good for careers demonstrated differences between components. RC soldiers clearly considered the deployment better for their careers than did the AC soldiers. However, RC and AC careers differ. For almost all RC soldiers, reserve duty involves a part-time job. Participating in the Sinai deployment would increase service time and its corresponding rewards. For AC soldiers, service in the RA is not only a full-time job but also, in many cases, a career as well; and AC soldiers' views of the effect of a 6-month

deployment may vary from those of their RC counterparts. Thus we feel that differences on this item probably reflect differences in the two types of careers.

Although the Army did not link the Sinai deployment experience to enhancing RC soldiers' chances of getting into the RA, many respondents (especially RC and junior enlisted personnel) thought that it would do so. This finding suggests that RC soldiers may have done some wishful thinking about future Army careers in the RA—or, alternatively—that they interpreted the information they received about the deployment in this manner.

Overall, and across all groups, somewhat fewer soldiers reported that they had traveled outside the Sinai and many fewer soldiers reported taking courses than we would have expected from the predeployment data.

In Chapter 11, Mael and Palmer discuss interview data obtained from leaders (from squad leaders up). These results reflect the discrepancy between soldier expectations concerning travel and education and what they actually experienced in the Sinai. Many of the deployees had been motivated to volunteer because of the enticement of foreign travel. Travel was also seen as an antidote to the boredom encountered during the deployment. Hence curtailment of travel opportunities constituted a real disappointment for many soldiers. They complained about the limited time the travel office was open (the 1 day per week did not always conform to soldiers' work schedules), and communication about travel opportunities was not always timely. The result of the perceived inadequacies of the travel office led soldiers to arrange trips on their own, which was a more costly alternative. Soldiers also believed that they had been promised 1 week off for each 6-week rotation. Because of the Quick Reaction Force rotations plus the additional training and work-related duties that were added, this level of time off became impossible.

Similar problems emerged with respect to education. Here again there was a wide discrepancy between soldier expectations and reality. Specific problems involved the low level of courses, the limited selection of courses, the expense of the courses, and the lack of time to spend on the courses. Soldiers assigned to remote observation posts found it

especially difficult to complete course requirements. Soldiers also felt angry about what they perceived was upper leadership's decision to focus on military training rather than college courses.

SUMMARY AND CONCLUSIONS

The pattern of responses from soldiers during the deployment was similar to the pattern found before deployment—that is, the group differences across component or rank were generally not large. The group differences that did occur were to be expected: officers were sometimes more positive than enlisted soldiers, and the RC soldiers (who were volunteers for the mission) tended to be more positive than the AC soldiers.

However, means for all soldiers and for all subgroups dropped on most variables from before the deployment to during the deployment, indicating less positive attitudes at the latter point. We found particularly large declines during this period on the variables of military job satisfaction, career intentions, and willingness to volunteer for future similar missions. We also found that predeployment expectations concerning the opportunity to take courses for credit had not been achieved during deployment.

Although there were a few positive comments written on the surveys, most of them were negative—many of them very negative indeed. Among these negative comments, we found a great many complaints about inadequate or misleading communication from the Army as well as accusations of outright "lying." At least from the standpoint of many of the deployees, they had been misled or misinformed before and during the deployment. We believe these perceptions led to the precipitous declines we found on some of the variables. Perhaps unrealistic expectations on the part of soldiers and/or the Army may be responsible for the more negative results obtained during deployment. We hope to clarify this issue with data collected in follow-up research.

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13

THE FINANCIAL IMPACT OF PEACEKEEPING IN THE SINAI

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INTRODUCTION

This chapter has two objectives. The first objective is to determine perceived financial gains or losses during training and deployment phases of the Multinational Force and Observers (MFO) Sinai mission by Active Component (AC) and Reserve Component (RC) soldiers. The second objective is to estimate the impact of these gains or losses on long term career commitment of the soldiers (i.e., to stay in their respective component until retirement).

Given the rise in military commitments and the greater drawdown of the active duty force, the relative importance of reservist soldiers in the military is increasing (Lakhani, 1995). The Air Force has already implemented a plan that relies on reservists to fly cargo planes, aerial tankers, and fighters around the world. The Army implemented a similar plan as part of the MFO Task Force (Matthews, 1995).

Reserve jobs are part-time volunteer assignments that are similar to civilian part-time jobs in a number of ways. Both groups of jobholders come from diverse backgrounds, select part-time work for a variety of reasons, and fill jobs in different occupations (Thomas & Kocher, 1993). Reserve jobs also differ substantially from civilian part-time jobs. The Army National Guard (ARNG) component of the reserve force involves primarily combat missions and is committed to a specified length of service. Reservists must be interested in "military service, meet

enlistment standards, complete initial training, and adapt to the military environment" (Thomas & Kocher, 1993, p. 340). Most reservists accrue eligibility for retirement benefits, compared to less than 20% of part-time civilian workers (Blank, 1990, as cited in Thomas & Kocher, 1993).

Selected reservists may participate in missions that present family and/or job conflicts. As recent events in the Middle East have shown, reserve participation may include the risk of civilian job disruption and family separation if a reservist is "activated" (Thomas & Kocher, 1993). Because of this, officials are concerned about the impact on reservists' families, civilian jobs, and earnings (Matthews, 1995). Francis (1992) reported that reservists deployed in Operation Desert Storm lost civilian income, health, and other benefits, as well as faced reduced promotional opportunities in civilian occupations. As a result, more soldiers planned to leave the Army after their return (26%) than when they joined (18%) (Lakhani, 1995).

The required growth of the reserve force to adequately support the AC force can be maintained by increasing reenlistment of reservists. However, retention can be problematic because the overall annual attrition rate in reserve services is 25% (Lakhani, 1995). Wong, Bliese, and Halverson (1995) examined the effects of multiple deployments on soldier well-being and on soldiers' intentions to remain in the Army. Using hierarchical regression, results showed that marital status was not significantly related to positive retention intentions, but multiple deployments were negatively related to retention intentions. There was also a significant interaction between marital status, previous deployments, and retention intentions. Single soldiers with previous deployments were less likely to remain in the Army. Previous deployments were not significantly related to retention intentions for married soldiers.

Our research addresses some of the Army's concerns regarding deployment of reserve forces. In this chapter, we assess how demographic and economic variables affect Army career intentions. We draw on the economic and military literature to provide an overview of current research.

LITERATURE REVIEW

Many turnover models emphasize intervening variables such as job satisfaction, commitment, intention to quit, and search behavior (e.g., Mobley, Griffeth, Hand, & Meglino, 1979; Price & Mueller, 1981). While these models identify causal paths in making a turnover decision, the relative importance of other determinants has been neglected. For example, the direct effects of demographic and economic variables have received limited attention (Thomas & Kocher, 1993). Cotton and Tuttle (1986) conducted a meta-analysis on the correlates of turnover and found that the type of industry moderated the relationship between turnover and pay, job satisfaction, and gender. They also found that individual perceptions about employment alternatives are consistently related to individual turnover.

Thomas and Kocher (1993) adopted Cotton and Tuttle's (1986) categorization of turnover correlates in their research. Cotton and Tuttle (1986) summarized numerous studies and reported three factors affecting turnover intention: external market (e.g., alternative employment opportunities), personal (e.g., demographic, work experience), and work-related (e.g., job characteristics).

Thomas and Kocher (1993) were interested in determining a range of factors that are likely to influence recruiting and retention policies. They tested hypotheses about the relative contribution of external market, personal, and work-related factors to an Army reservist's decision to remain in the Army. The initial turnover model was run for all reservists, and results showed a significant gender effect. Subsequent analyses were performed using gender-specific models. We report the male model because it is consistent with the sample in our study. Results showed that logistic regression coefficients for age at reserve entry, school attendance, current financial benefits, and retirement benefits positively predicted turnover decision. Race did not significantly impact the turnover decision. Based on these results, Thomas and Kocher (1993) evaluated policy approaches and suggested that policy should target older individuals in reserve recruiting (e.g., ages 20-22).

Thomas and Kocher (1993) described the need for longitudinal research using survey and personnel data. Over time, "leavers" and "stayers" could be tracked beyond their turnover decision points to

update personal, financial, and work-related data. In addition, research comparing civilian to reserve turnover decisions can shed light on individual differences between these groups that may affect turnover. The research presented below focuses on a narrower set of variables to address turnover intentions among Army reservists.

Demographics

Grissmer and Kirby (1985) found that age and the number of dependents negatively predicted reenlistment decisions, while marriage positively predicted reenlistment decisions. This suggests that single reservists have higher retention rates than married reservists, but married reservists with dependents have higher retention rates than single or married and childless reservists. Results also showed that higher retention rates were found among African-Americans and people with some college education. Grissmer and Kirby (1985) stated that these results may reflect a preference for reserve service among these groups or more uncertain civilian economic prospects for African-Americans and less educated people. Phillips, Andrisani, Daymont, and Gilroy (1992) stated that minorities are more likely to remain in the Army than whites. For example, African-Americans reenlist after their first term at about a rate of 50% higher than whites.

Attitudes

Lakhani and Fugita (1993) used a sociological theory to explain how spouse attitudes toward reserve participation affected reserve reenlistment. Results showed that family earnings and a spouse's favorable attitude toward the reservist's career plans increased the probability of reenlistment. Lakhani (1995) found that reservist's satisfaction with military life and job satisfaction were also positively associated with reenlisting. Lakhani (1995) suggested that economists should include attitudinal and affective variables in analyses of retention intentions.

Military Experience

Reserve retention rates also show strong dependence on military experience variables. Grissmer and Kirby (1985) reported that higher

pay grades were associated with higher retention rates, and reservists in noncombat jobs were more likely to reenlist than those in combat jobs. Holding risk constant, it is possible that skills acquired in combat jobs may not be easily transferred to civilian jobs.

Burright, Grissmer, and Doering (1982) included reserve-specific variables in their analysis, concluding that variables such as prior active military service, pay grade, civilian employer's attitude toward the reserves, and prior reenlistment in the reserves had a positive and significant effect on reenlistment. In contrast, years of service and assignment to combat positions were negatively related to reenlistment.

The U.S. General Accounting Office (1991) found that reserve attrition rates were higher for reservists who lost overtime pay opportunities and when a reservist's primary military occupational specialty (PMOS) mismatched their duty occupation. Based on these results, they recommended more flexible training requirements and further analysis of matching PMOS with duty occupations.

Economics

Several researchers analyzed the role of economic variables in predicting retention intentions. Grissmer and Kirby (1985) found that reservists who live in areas with relatively high unemployment and low per capita income have relatively higher retention rates. This implies that reserve service may be economically motivated by supplementing income. They also tested the effects of Selective Reenlistment Bonuses (SRBs) on reenlistment decisions. Results showed that SRBs were significantly related to retention rates. Reservists receiving bonuses extended or reenlisted more frequently than those in a control group. However, results suggested that separation decisions may be weakly sensitive to pay increases.

Mehay (1991) tested whether the decision by civilians to join the reserves is equivalent to the decision by civilians to moonlight. Results showed two distinct models for reservists and moonlighters, suggesting that the decisions are not equivalent. Results also showed that participation in the reserves is a labor force decision which is strongly influenced by individual and family economic status and local

employment conditions. These findings are consistent with research related to reservists' intention to remain in the Army.

Finally, Lakhani (1995) found that reenlistment increased with increases in reserve pay and decreased with increases in civilian moonlighting wages. In addition, reenlistment intentions correlated positively and significantly with actual reenlistment behavior. Thus, both variables are appropriate for analyzing turnover.

The literature presented here shows that demographic, attitudinal, military, and economic variables explain important aspects of the reenlistment decision. As Lakhani (1995) states, "(these variables) occupy an important place in the reenlistment analysis" (p. 126).

RESEARCH OBJECTIVE

A primary purpose of this research was to test a model of career commitment in the Army. The model includes financial variables as well as demographic and psychological variables. To test this model, career intentions were regressed on financial status (gains or losses) to determine whether financial gains are associated with Army career commitment, while statistically controlling for other variables affecting career commitment.

In this research, career commitment is defined as "the intention to stay in the RC or AC until retirement." In future research, career commitment will be defined as reenlistment behavior during the postdeployment period. Future long-term earnings and reenlistment behavior has been, and will continue to be, analyzed by follow-up surveys for 3 years after the soldiers' return (end of 1995, 1996, and 1997). Educational attainment, a sociological variable, will be assessed from educational levels attained by the Sinai veterans from the postdeployment follow-up surveys.

METHOD

To determine the economic impact of deployment to the Sinai on the soldiers, data were collected in two waves. Wave one data were collected during the MFO task force training phase and wave two data were

collected during deployment at the South Camp in the Sinai. Similar surveys and methods were employed during both data collection waves. Most demographic information was collected during wave one, but was used in both wave one and wave two data analyses.

Wave One: Training Phase

The survey instrument, *1994/95 Questionnaire of Socioeconomic Impact of Deployment in Multinational Force and Observers (MFO) Task Force*, was administered, in person, to a population of approximately 500 soldiers during predeployment training at Fort Bragg, NC, in August and October 1994. The response rate ranged between 66% and 90% for most of the 28 demographic and financial items in the survey. Financial items included military and civilian pay and allowances, self-estimated financial gains or losses from volunteering for the MFO assignment, civilian and military employment experience, spouse employment experience and earnings, and Army career intentions prior to, and subsequent to, deployment to the mission. The specific variables of interest for this chapter are described below.

The dependent variable, career intention, was measured in response to the question, "Has your likelihood of staying in the Guard/Reserve or Regular Army until retirement increased, decreased, or remained the same due to deployment in the MFO?" Responses were coded as follows: decreased=1, remained the same=2, and increased=3. "Don't know" responses and missing values were excluded from the analysis by listwise deletion.

The quantitative independent variables were self-reported financial gains and losses, monthly pay, civilian earnings, and education. Respondents estimated the values of financial gain and loss to open-ended items. We calculated the soldiers' monthly salaries based on the 1995 *Army Times* Pay Chart using individual data on rank and years of service. Years of service was defined as the aggregated total number of years in active and reserve duty. Education was defined as a continuous variable with the following values: some high school, no diploma=1; GED or equivalent=2; high school diploma=3; 1-2 years college=4; Associate's Degree, occupational program=5; Associate's Degree, academic program=6; 3-4 years college, no degree=7; Bachelor's

Degree=8; graduate credit, no degree=9; and graduate or professional degree=10. Variables for categorical data were dummy coded. These variables included race (white=1; else=0), marital status (married=1; else=0), and force component (Reserve=1; Active=0).

Wave Two: Deployment Phase

The deployment phase survey was administered, in person, during May 1995 to the same population of soldiers who completed the training phase survey. The population consisted of approximately 500 AC and RC soldiers at the South Camp in the Sinai Peninsula. The survey consisted of 41 items of both financial and family impact variables. The subset of financial and nonfinancial variables used for the analyses is specified below.

Data were collected for the dependent variable, career intention, during the deployment phase survey administration. The item and its response options were identical to the career intention item included in the training survey. Data for financial gains and losses were also collected as independent variables, but did not reflect open-ended responses as in the training phase survey. Instead, responses were framed in terms of value ranges to reflect the ranges in the training wave data. The midpoint of each range was used as an item response. Midpoint values for financial gain/loss were computed as follows: did not gain/lose financially=$0, less than $100/month=$50, $100-$200/month=$150, $201-$300/month=$250, $301-$400/month=$350, $401-$500/month=$450, and $500+=$750. These midvalues were combined to create a variable that ranged from losses to gains. The variable reflected change in financial status during deployment, with values ranging from negative $750 (indicating loss) to positive $750 (indicating gain).

Army satisfaction was also an independent variable and was measured in response to the question, "Overall, how satisfied are you with the Army as a way of life?" Likert-type responses ranged from "very dissatisfied"=1 to "very satisfied"=5. This question was not asked during the training phase survey.

Design and Analysis

Survey data collected during waves one and two were used to analyze financial gains/losses and their effect on career intentions. We used summary statistics to describe demographic, economic, and psychological variables of the RC and AC. We also compared financial variables between the training and deployment phases.

To determine the financial impact of the deployment experience on RC soldiers, hierarchical regression equations were used for training and deployment wave data. In our data, the monthly basic pay variable (MO_PAY; calculated from rank and years of service) was related to the financial gain/loss variable (T_FINANC) and the Army satisfaction variable (ASATIS) (see Table 13-1). Prior to regression analyses, all variables were tested for normality, outliers, and linearity. No variables violated these assumptions.

Table 13-1

Pearson R Correlation Coefficients Among Quantitative Predictors

	T_FINANC	D_FINANC	MO_PAY	EDUCAT	ASATIS
T_FINANC	1.00	.413*	.030	.049	NA
D_FINANC		1.00	.048	.055	.137*
MO_PAY			1.00	.543*	.286*
EDUCAT				1.00	.082
ASATIS					1.00

* $p < .05$

NA = Not applicable; T_FINANC = Financial gain/loss, training; D_FINANC = Financial gain/loss, deployment; MO_PAY = Basic monthly pay; EDUCAT = Education level completed; ASATIS = Army satisfaction.

Wave one variables included career intention during the training phase as the dependent variable, and financial status, force component, race, marital status, and education as independent variables. Financial status during the training phase referred to the perceived gain/loss in finances compared to their financial status prior to volunteering for the

MFO. Therefore, for the AC, this variable represented military pay and allowances at the time of data collection; for the RC, this variable represented the change in financial status from civilian earnings plus drill pay received from the pretraining to the training phase. We hypothesized that financial gain is positively associated with the intention to stay in the AC or RC until retirement, while statistically controlling for the effects of other explanatory variables (e.g., Army satisfaction, marital status, education, etc.).

Wave two variables included career intention during the deployment phase as the dependent variable; change in financial status and Army satisfaction as independent variables. Other independent variables included force component, race, marital status, and education. These demographic data were previously collected during wave one and were match-merged with wave two data by social security numbers.

RESULTS AND DISCUSSION

Summary statistics for the study group are organized into three sections: (1) analysis of demographic and psychological variables, (2) comparison of AC and RC data, and (3) comparison of training and deployment data. Please note that percentages listed in the tables may not sum to 100% due to rounding error.

Descriptive Statistics for Demographics and Career Commitment

The age distribution of the soldiers revealed that most of the RC soldiers were very young, junior in rank (E1 to E4), and unmarried. AC soldiers were mostly noncommissioned officers (NCOs), older, married, and with dependent children. The rank distribution of the soldiers revealed that 96% of all junior enlisted soldiers were from the RC. Approximately two thirds of all soldiers were not married, 4% were separated, and only one-third were married. The average (arithmetic mean) educational level of the soldiers was 4.23 (i.e., 1 to 2 years of college). [See Chapter 5 for a more detailed analysis of demographics.]

Financial Gains and Losses by Component

Table 13-2 reports the results of financial gains and losses by component. The column for net change shows that the AC reported an average net loss of $154.89 per month during the training phase and an average net gain of $52.52 per month during the deployment phase. Therefore, the AC reported an overall average net financial loss of $102.37 per month during the mission.

Table 13-2

Mean Values of Financial Gains and Losses by Component

	Active Component			Reserve Component		
Phase	$ Gain	$ Loss	$ Net	$ Gain	$ Loss	$ Net
Training Phase	45.40 (55)	200.29 (71)	-154.89	554.05 (233)	287.42 (207)	266.63
Deployment Phase	101.69 (59)	49.11 (56)	52.52	218.22 (225)	99.17 (241)	119.05
Total Mission	147.09	249.40	-102.37	772.70	386.59	385.68

Note. Sample size in parentheses.

Table 13-2 also shows that, in contrast to the AC, the RC reported a net financial gain. For example, the RC made average net gains of $266.63 per month during the training phase and $119.05 per month during the deployment phase. Therefore, the RC made an overall average net gain of $385.68 per month during the mission.

The overall average net benefit from the mission can be obtained by subtracting the average net loss reported by the AC from the average net gain reported by the RC. It amounted to $284 ($386 minus $102) per month. Therefore, the soldiers overall average net gain exceeded the average net loss during the mission.

The average net incremental benefit (identified in this study) to *all* soldiers can be combined with, and related to, the incremental cost of the composite battalion estimated by Brinkerhoff and Horowitz (1995). They reported that the incremental cost of the composite battalion in the

28th Rotation was $21 million, with $18 million covering pay and allowances. They also noted that the cost of pay and allowances for the 27th Rotation comprising only AC soldiers was $18 million. The differential cost of $3 million for the composite battalion was incurred by the permanent change of station (PCS) costs to cover RC soldiers' moving expenses from 43 states to Fort Bragg for training.

Economic theory stipulates that if the incremental cost of two alternatives is the same, but the incremental benefit of one alternative is greater, it is economically efficient to adopt the alternative with the higher incremental benefit (Layard, 1976). The literature suggests that there was no substantial increase in incremental cost to field this composite mission compared to the cost of fielding the alternative, a battalion of 100% AC soldiers. In addition, the results of this study showed that an incremental benefit was realized by the average soldier (either AC or RC) which exceeded the incremental cost. Moreover, the benefits were spread more equitably for Rotation 28 than Rotation 27 because greater gains were realized by RC soldiers who comprised 96% of the junior enlisted ranks. To sum up, the cost-benefit analysis revealed that while costs were the same, the benefits were greater and distributed more equitably for the composite battalion.

Comparative Statistics Between the AC and RC During Training

The survey respondents included junior enlisted, NCOs, and commissioned officers from both the AC and RC. The number of soldiers was 634, with 80% RC soldiers and 20% AC soldiers. The rank structure revealed that 63% of the soldiers were junior enlisted, 30% were NCOs, and the remaining 7% were officers. This distribution of ranks represents the population of all soldiers in the peacekeeping assignment. While the officers and NCOs were equally divided between the RC and AC, junior enlisted soldiers were drawn mostly from the RC (61% vs. 2% from the AC of the total battalion of AC and RC).

Table 13-3 shows that career intentions for most respondents during the training phase remained unchanged (68% of the AC and 53% of the RC). However, the probability of increased retention was greater for the RC than the AC (32% vs. 12%). The probability of decreased retention was greater for the AC than the RC (11% vs. 4%). Therefore, RC

soldiers (relative to AC soldiers) perceived that they were more likely to stay in the Army after their Sinai experience.

Table 13-3
Self-Reported Impact of AC and RC Soldiers on Army Career Intentions During Training

	AC		RC	
Change in Career Intentions	Freq.	%	Freq.	%
Increased	11	12.2	117	31.8
Decreased	10	11.1	14	3.8
Unchanged	61	67.8	194	52.7
Don't Know	8	8.9	43	11.7
Total (*N*)	90	100.0	368	100.0

Comparative Statistics Between Training and Deployment Phases

Table 13-4 shows the data for career intentions of AC and RC soldiers. The data for the training phase revealed that career intentions remained unchanged for most of the soldiers (67.4% for the AC vs. 52.7% for the RC). During the training phase, RC soldiers reported they were more likely to stay in the Army until retirement than AC soldiers (31.9% vs. 12.0%). On the other hand, during the deployment phase, perceived career commitment decreased considerably for both components.

Table 13-4
Comparison of Changes in Army Career Intentions During Training and Deployment Phases

	AC		RC	
	Training (n = 92)	Deploy. (n = 67)	Training (n = 370)	Deploy. (n = 284)
Response	%	%	%	%
Increased	12.0	6.0	31.9	17.6
Decreased	12.8	38.8	3.8	28.9
Unchanged	67.4	49.3	52.7	43.3
Don't know	8.7	6.0	11.6	10.2

Regression Results

Table 13-5 provides descriptive statistics of the independent variables used in the regression analyses. Table 13-6 shows the results of two separate regression equations for predicting career intentions during the training and deployment phases of the mission.

Table 13-5
Descriptive Statistics of Variables Used in Regression Equations

Variables	*N*	M	Std. Dev.	Min.	Max.
Dependent					
Intent to Stay, Training	433	2.25	0.56	1.0	3.0
Intent to Stay, Deployment	330	1.83	0.70	1.0	3.0
Independent					
Financial Gain/Loss, Training $/month	357	174.74	1,024.72	-3,666.7	3,900.0
Financial Gain/Loss, Deployment $/month	320	97.50	362.56	-750.0	750.0
Army Satisfaction	363	3.23	1.15	1.0	5.0
Basic Monthly Pay	328	1,442.08	514.61	957.6	4,313.1
Education*	481	4.23	2.11	1.0	10.0

* 1=some high school, no diploma; 10=graduate or professional degree

Financial status (gain or loss) was entered in block one using the training phase data to predict career intentions. Financial gain accounts for a statistically significant portion of variance in explaining career intentions. Thus, financial gains during this phase are positively associated with intentions to remain until retirement.

Army satisfaction (block two variable) was not included in the training phase regression equation because this question was not asked as part of the training survey. To accurately compare training and deployment phase results, the next set of variables is described as block three variables. Independent variables entered in block three were basic monthly pay and force component (RC=1; AC=0).

Block three variables added significant variance above and beyond the financial explanatory variable in block one. However, only force

Table 13-6

Regression Results for Career Intentions During Training and Deployment Phases

Independent Variables	Training Phase (N = 209)	Deployment Phase (N = 187)
Block 1	R^2 = .036, $F(1,207)$ = 7.732*	R^2 = .073, $F(1,185)$ = 14.639*
Financial Status	β = .190, t = 2.781	β = .271, t = 3.826*
Block 2	NA	ΔR^2 = .047, $F(1,184)$ = 9.781*
Army Satisfaction	NA	β = .219, t = 3.127*
Block 3	ΔR^2 = .072, $F(2,205)$ = 8.273*	ΔR^2 = .017, n.s.
RC	β = .275, t = 4.027*	β = .132, n.s.
Monthly Pay	β = .102, n.s.	β =-.005, n.s.
Block 4	ΔR^2 = .017, n.s.	ΔR^2 = .015, n.s.
Race	β = .043, n.s.	β =-.030, n.s.
Marital Status	β =-.131, n.s.	β = .040, n.s.
Education	β = .016, n.s.	β = .141, n.s.
R^2	.125, $F(7,201)$ = 4.797*	.153, $F(6,180)$ = 4.606*

Note. Standardized regression coefficients are shown.

* $p < .05$.

NA = Not applicable, question not asked during the training survey.

component (i.e., RC) had a significant positive, linear relationship with career intentions. Thus, during the training phase, RC, but not AC soldiers, reported increased likelihood of remaining in the military until retirement. It is important to note that the criterion variable in the equation refers to career intention, not behavior, so these results are tentative until we examine career behavior data. Career behavior data will be collected in postdeployment surveys.

Independent variables entered in block four were demographic variables: race, marital status, and level of educational attainment. These variables did not contribute significant variance to predicting career

intentions. Therefore, they were not crucial in explaining career intentions.

It is important to note that the results reported here on the relationship between perceived financial gains or losses on career commitment differ from the results reported by Dr. Siebold (Chapter 10). Three reasons may account for this discrepancy. First, different survey items were used in the two analyses. Siebold used the qualitative item of perceived gain or loss: "Did you gain or lose financially during deployment?" with Gain=l, and Loss=0. We used the quantitative item of gain or loss: "Overall, how much do you estimate you gained or lost from deployment?"

Different career commitment items were also used. Siebold employed a 6-point organizational commitment item: "I have been in the military for 20 or more creditable years" =1, to "I will definitely leave the military before retirement" =6. We analyzed a 3-point item: "Has your likelihood of staying in the Guard/Reserve or Regular Army until retirement increased, decreased, or remained the same due to deployment in the MFO/Sinai?" Second, the sample size varied in the two analyses by using different items. In addition, Siebold used data at remote sites and we used data from all sites. Third, statistical procedures were different. Siebold estimated a correlation coefficient between financial gain/loss and career commitment; we estimated a regression equation with career commitment as a dependent variable and financial gain/loss, Army satisfaction, and demographics as independent variables. Despite these differences, however, the gains reported in this chapter are modest, albeit statistically significant.

For the deployment phase analysis, the financial gain/loss variable was also entered in block one to predict career intentions. The results reveal that this variable accounts for a significant portion of variance in explaining career intention during deployment. This indicates that financial gains during the deployment phase are related to a greater likelihood of staying until retirement.

Army satisfaction, entered in block two, explained significant variance in addition to the financial independent variable in block one. This variable had a positive, linear relationship with career commitment

during the deployment phase. This indicates that soldiers satisfied with the Army were more likely to remain until retirement.

Independent variables entered in block three were basic monthly pay and force component (RC). Block three variables did not add significant variance beyond Army satisfaction and change in financial status variables. During the deployment phase (unlike the training phase), force component does not have a significant linear relationship with career intentions. In the deployment data analysis, Army satisfaction was included as an independent variable. To identify potential reasons for the different results, force component and monthly pay were reanalyzed, excluding Army satisfaction from the second equation. This structure parallels the training phase analysis. The results indicated that force component did not have a significant relationship with career intentions. However, when Army satisfaction was included in the equation, the regression coefficient for RC increased. It appears that force component was suppressed by Army satisfaction and, hence, does not predict career intentions at the time of deployment. When RC soldiers faced the realities of deployment, their career commitment declined substantially and was not different from career commitment levels of AC soldiers.

The independent variables entered in block four were demographic variables: race, marital status, and educational attainment. This set of variables did not contribute significant variance to the prediction of career intentions.

Test of Equality of Regression Coefficients

Separate regression equations were estimated for the RC and AC during the training and deployment phases to test the null hypothesis that the parameters are not different for the AC and RC. Regression coefficients from each equation were compared to the overall model to test for equivalence of the coefficients across the two regressions. In the original model, force component was included as a dummy-coded variable. Since we estimated separate equations for each component, this variable was no longer appropriate. Therefore, the pooled equation was reestimated by dropping the component variable.

The analysis of equality of regression coefficients revealed that the AC and RC soldiers were statistically different groups during the training

phase, but they were not significantly different during the more critical deployment phase. Therefore, we conclude that one can consider the pooled data analysis for deployment phase to be representative of the subgroups of soldiers. See Lakhani and Abod (in press) for a more detailed and technical account of this analysis.

CONCLUSIONS AND FUTURE RESEARCH ON CAREER COMMITMENT AND EARNINGS

In this research, we analyzed the impact of volunteering for the MFO peacekeeping mission on Rotation 28 soldiers. A survey (N=500) was conducted during training and deployment phases. Analysis of these data resulted in the following major conclusions:

- RC volunteers were mostly younger, junior in rank, unmarried; were either unemployed, underemployed, or in school; and gained financially from volunteering for the mission.
- AC soldiers were senior in rank, older, married, and lost financially relative to the RC.
- RC soldiers reported greater career commitment than AC soldiers during the training phase, but no significant difference was found between these groups during the deployment phase.
- Career commitment for both AC and RC was enhanced significantly ($p < .05$) by financial gains and satisfaction with Army life.

While the model explained significant variance in career intentions during both phases, we are less interested in the total variance explained because we did not have a complete model. Other variables that might explain greater variance in career commitment were not included in the study because we did not have the required data.

Data for veteran volunteers who returned from the Sinai will be collected in postdeployment follow-up surveys conducted at the end of 1995, 1996, and 1997. Future research will include analyses of reenlistment behavior of the soldiers as well as their plans to stay in the RC until retirement.

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SECTION 5

THE MFO FAMILY

One of the major research questions about using Reserve Component (RC) volunteers is its effect on families. We believed that providing support for RC families would have been more difficult than usual simply because families were located in 27 different states instead of a single installation. Therefore, the risk of adversely affecting families seemed higher for Rotation 28 than for previous all-Active Component (AC) rotations. Furthermore, the lessons learned from this rotation could be used for other missions where RC soldiers come from widely dispersed locations.

There were two major family questions concerning the use of RC volunteers. First, did the Army currently have the ability to support RC families across the country, with 44% of them more than 50 miles from a military installation? Second, what was the impact of volunteering for the Multinational Force and Observers (MFO) on soldiers' family lives? That is, did the RC volunteers and their spouses experience changes in the stability or quality of their marriages as a result of full-time military service away from home?

In Chapter 14, Bell, Schumm, Segal, and Rice discuss the family support system specially designed and implemented for assisting RC as well as AC families. They describe the system as a composite of AC assets, similar to those used in the first MFO rotation of 1982, and RC assets drawn from the Army National Guard. This chapter concentrates on the procedures and structures used, their assessment, and recommendations for future family support systems.

In Chapter 15, the same authors describe changes perceived by the soldiers and spouses in their marriages over the duration of the mission. The focus is on marital satisfaction, quality, and stability and how these changes affect soldiers' morale while in the Sinai.

14

THE FAMILY SUPPORT SYSTEM FOR THE MFO

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INTRODUCTION

The purpose of the U.S. Army Research Institute for the Behavioral and Social Science's (ARI's) family research during the Multinational Force and Observers (MFO) deployment was to provide the Army with information that would improve the effectiveness of formal family support operations during this and similar Army deployments. This charter was consistent with the Army Chief of Staff's criteria for a successful MFO experience: the unit should perform the mission well and take care of its families. The 28th Rotation faced some formidable obstacles in putting together its family support system. It was a new unit with no corporate history of how to do things; it received a lot of high-level attention; it had to deal with both Active Component (AC) and Reserve Component (RC) structures; and its members were drawn from all over the country.[1]

1 According to unit records, the soldiers came from 33 states and had spouses in 31 states. ARI surveys indicated that the soldiers' "homes of record" included 39 states plus the District of Columbia.

METHOD

Married Soldier Sample

The data presented here are based on the 32% of the unit which was married and the 69 civilian wives who completed questionnaires.[2] The ages of married soldiers ranged from 19 to 55 years old; the average age was 31 years. Seventy-two percent of married couples had at least one child at the time the soldier joined the 28th Rotation. The racial composition of married 28th Rotation soldiers was similar to that of the larger sample (75% White, 19% Black, and 7% other races).[3] Almost all soldiers had at least a high school diploma or equivalent (96%). More of the AC (64%) than RC (46%) had attended college. This difference is consistent with the rank differences discussed below.

Married soldiers in the 28th Rotation were very dispersed. Figure 14-1 shows that 18 states had RC families, 5 states had AC families, and 9 states had both AC and RC families. An alternate way of looking at dispersion is how far away soldiers were from AC installations. In the unit as a whole, 34% of the wives lived more than 50 miles from the nearest post. This figure is much higher among RC (45%) than AC (15%) spouses.

Married AC soldiers had more military and deployment experience than RC soldiers. More AC soldiers (96%) than RC soldiers (49%) were noncommissioned officers (NCOs) or officers. Eighty percent of the AC married soldiers had prior overseas assignments as compared to 48% of the RC soldiers. Very few (7%) soldiers had previously been assigned to Sinai duty. Those soldiers who had been assigned were much more likely to be from the AC (83%).

Spouses ranged in age from 20 to 55 (average: 30 years). Like their husbands, nearly all of these wives had at least a high school diploma or equivalent (95%). Most spouses (56%) were employed full-time; many were employed part-time (18%). RC spouses were more likely than AC

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2 Although most RC and AC soldiers were married, 32% of soldiers being married is typical of MFO units. These spouses are referred to as wives, because all of the soldiers who were married were males.

3 The AC has a higher percentage of Blacks (particularly in its combat units) than this unit had. However, the racial composition of the 28th Rotation is quite similar to that seen in the RC, as a whole.

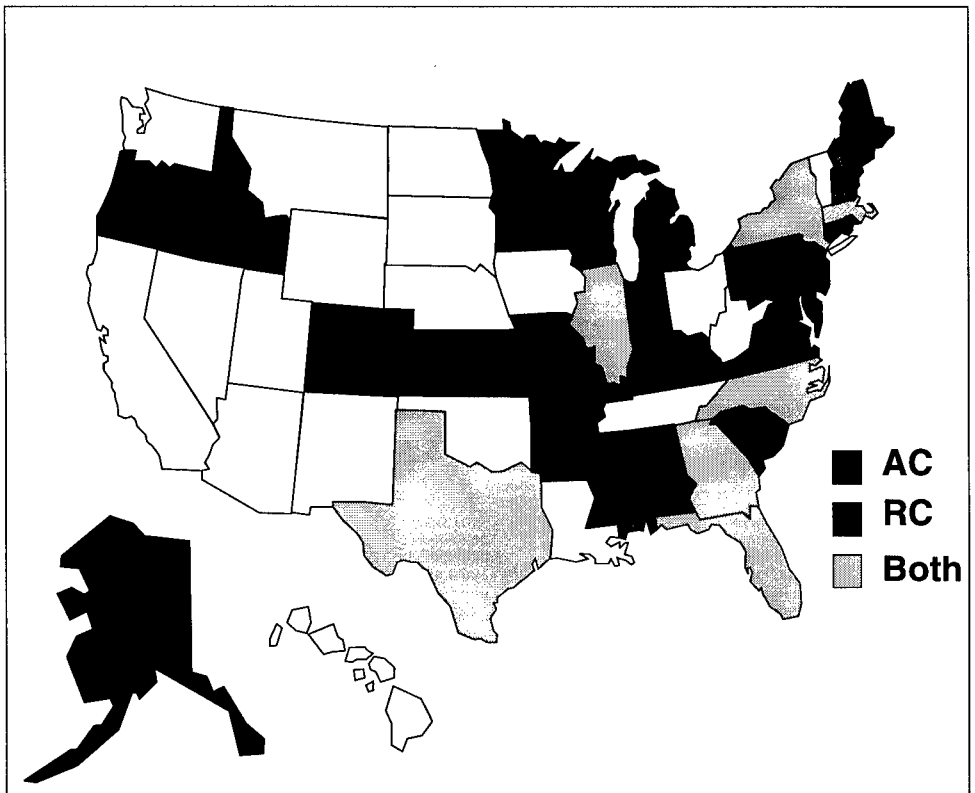

Figure 14-1.

spouses to be employed (80% and 47%, respectively). AC spouses were more likely than RC spouses to be "homemakers" (40% vs. 13%).

Reviewing Prior Support Systems

We reviewed 46 military family support reports from overseas deployments since 1980 that involved at least 150 individuals, lasted 6 months or longer, and produced a report, *How to Support Families During Overseas Deployments: A Sourcebook for Service Providers* (Bell, Stevens, & Segal, 1996). The findings from that research review which have the most relevance for the MFO follow.

At the battalion level and below, the family support system actually consists of two systems: (1) the unit and its leadership, the Family

Support Group (FSG), and Rear Detachment (RD), and (2) the families' own interpersonal resources (relatives and friends). Unit leadership has always been essential to effective family support; if leaders do not know or do not care about families and/or the Army's programs to help families with deployments, the otherwise positive aspects of the system can be nullified. As formal organizations, FSGs are usually tied to units in the AC; during Operations Desert Shield and Desert Storm (ODS/S), the Army National Guard (ARNG) found it useful to establish FSGs by area rather than by unit.

Past deployments have been found to affect families in various ways. Most families cope successfully with long deployments, loneliness, and financial strain. Marital difficulties are common experiences.

The report (Bell et al., 1996) recommended that family support be improved by focusing on prevention, doing a better job of providing support services (e.g., training FSG leaders, operating telephone trees, and briefing family members on what to expect), and ensuring that certain families (e.g., those of filler or cross-leveled personnel) are not left out of the information loop.

Interviewing Family Support Personnel

The 1996 report also contains information from interviews the authors conducted with service providers associated with a North Carolina and a Maine unit that deployed to Central America as part of Caminos Fuertes (Strong Roads)—a 6-month training exercise for ARNG engineers. The authors also interviewed family support personnel associated with three AC MFO units that deployed as peacekeepers to the Sinai. These efforts helped them to form research questions and to understand the information received about the 28th Rotation.

Observing Unit and Related Army National Guard Operations

ARI family support researchers also observed and conducted interviews at many points in the lifecycle of the unit. These occasions included attending: the 29th Infantry Division's (Light) (29th ID[L])

soldier-family orientations (April, July, and September 1994)[4], the unit activation ceremony, a regional MFO family-support workshop in Staunton, VA (Harman, 1995b), and other unit activities.

Interviewing Army National Guard State Family Program Coordinators (NGSFPCs)

There are 54 "state" ARNGs (i.e., the 50 states, plus the District of Columbia, Puerto Rico, and the territories). Each of those "states" has an NGSFPC that coordinates services for families. ARI conducted structured telephone interviews with NGSFPCs during late January and early February 1995. The interviews covered: the NGSFPCs' backgrounds and experiences with other long, overseas deployments, what they knew about the 28th Rotation; where they had learned these facts; and what family services they had provided or planned to provide.

ARI was able to reach 18 of the 33 NGSFPCs who had soldiers in the 28th Rotation. The reasons for not contacting and interviewing the others included: the position was vacant, the NGSFPC was new to the position, the NGSFPC was on leave for an extended period of time, or they were not included because their records indicated that they had no 28th Rotation spouses living in their state (Bell, 1995a; Harman, 1995a).

Interviewing the People Who Operated the Support Activities

The operators of the family support system for the 28th Rotation were interviewed on several occasions. Fort Bragg's family support personnel were interviewed in May 1994; the unit leadership and staff were interviewed in the Sinai in February 1995, and the RD and FSG leaders were interviewed in July 1995.

The Sinai interviews consisted of individual interviews with all of the personnel segment of the 28th Rotation staff (i.e., the Battalion Commander, the Battalion Executive Officer (XO), the First Sergeant,

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4 The official name for this event was Soldier Readiness Processing or SRP. Because the unit was assembled in segments there were actually three of these events held at Fort Belvoir: April 1994 for the unit leaders; July 1994 for the rest of the sergeants and above, and September 1994 for the junior enlisted soldiers. Spouses were invited to each of these events. The bulk of those who attended came to the July or September meetings.

the Personnel Officer (S-1), the Command Sergeant Major, the Battalion Chaplain, the Battalion Psychologist, and the Finance Officer). At the company level we also interviewed the Company Commanders and their S-1s. Group interviews were also held with up to 10 junior enlisted soldiers, junior NCOs, senior NCOs, and junior officers.

Administering and Analyzing Soldier and Spouse Surveys

Three questionnaires were administered—two for soldiers and one for their spouses. The first soldier questionnaire was administered shortly after the soldiers arrived at Fort Bragg (i.e., in August 1994 for the officers and NCOs and October 1994 for the junior enlisted soldiers). The second soldier questionnaire was administered in May 1995, more than halfway through the deployment.[5] The types of questions asked on the first questionnaire included: family characteristics, expectations about the mission and its effects on the soldier's family, worries about the family being left behind, and the availability and use of Army and community resources. The second soldier questionnaire repeated many of these items to discern whether changes in soldier attitudes and life situations had occurred during the deployment.

The spouse questionnaire (April 1995) was mailed to the 199 spouses of unit members. Sixty-nine of the spouses returned usable questionnaires.[6] The questionnaire was modeled after the soldier instruments and covered much of the same information, but from a spouse's point of view. The first analysis of questionnaire data explored differences in the availability and use of family support systems among the families of RC soldiers living in different parts of the United States

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5 It is hard to say exactly how many soldiers participated in the 28th Rotation since we were not on site and the records kept changing. We believe 570 soldiers had participated by the time we completed the first family questionnaire (October 1994). Of those, 536 (94%) provided usable questionnaires. We believe that there were 527 soldiers in the Sinai at the time of the second soldier questionnaire. Of those, 464 (88%) provided usable questionnaires. According to recent conversations with the Battalion S-1, 570 individuals served in the unit. The maximum strength at any one time was 556 individuals. The unit expected to train more individuals than would actually deploy because of needed adjustments in the unit structure (e.g., more Military Police and less Infantrymen) expected attrition (e.g., illness, injuries, and family problems), and the need for an RD. Five hundred twenty-four individuals were deployed in January. Five hundred eighteen individuals were still deployed when we surveyed the unit in May 1995.

6 We were unable to locate 70 of the 199 unit spouses. Among those we were able to locate, we received 69 usable questionnaires (a 53% response rate).

(Bell, Segal, & Rice, 1995). Analyses of other aspects of the family support system appear in the tables.

FINDINGS

The Structure and Functioning of the Family Support System

The design of a family support system for the 28th Rotation was particularly challenging. Most of the soldiers left their families "at home" rather than bringing them to Fort Bragg. Furthermore, many of these families might have found it more convenient or comfortable to get their formal family support outside of the MFO unit (e.g., an AC installation other than Fort Bragg, an RC unit, or RC family support professionals). Furthermore, many RC families are not accustomed to receiving assistance from Army agencies. Since the 28th Rotation was a unit designed for a single mission, many of the support mechanisms had to be invented or at least initiated by the unit.

The support system that evolved was a hybrid of AC and RC structures which were unevenly coordinated with the MFO unit. The major elements of that system were: the unit (both the part that deployed and the RD that remained at Fort Bragg), the unit's FSG at Fort Bragg, the NGSFPCs in the affected states, and that portion of the Army which was physically close to the families (e.g., RC units, RC FSGs, and AC installations). For at least part of the time, the soldiers and some of the families also had access to family support services at Fort Bragg. The location and functioning of this "support system" in terms of handling family difficulties is shown in Figure 14-2 (Bell, 1995a & 1995b).

The unit. Interviews with unit leaders showed that the main people involved with family support from the initial organization of the unit were the Battalion Commander, the Commander's wife, the Battalion Chaplain, the Battalion S-1, and the person filling the position of Family Assistance Officer (FAO).

The key people during the planning phase of the operation were the Chaplain, the psychologist, and the FAO, who wrote the majority of the unit's *Family Support Handbook* (TF 4-505 PIR, 1994). The handbook was much more informative than the typical battalion-authored document. It contained many practical tips on how to cope with

The 28th Rotation's Family Support System

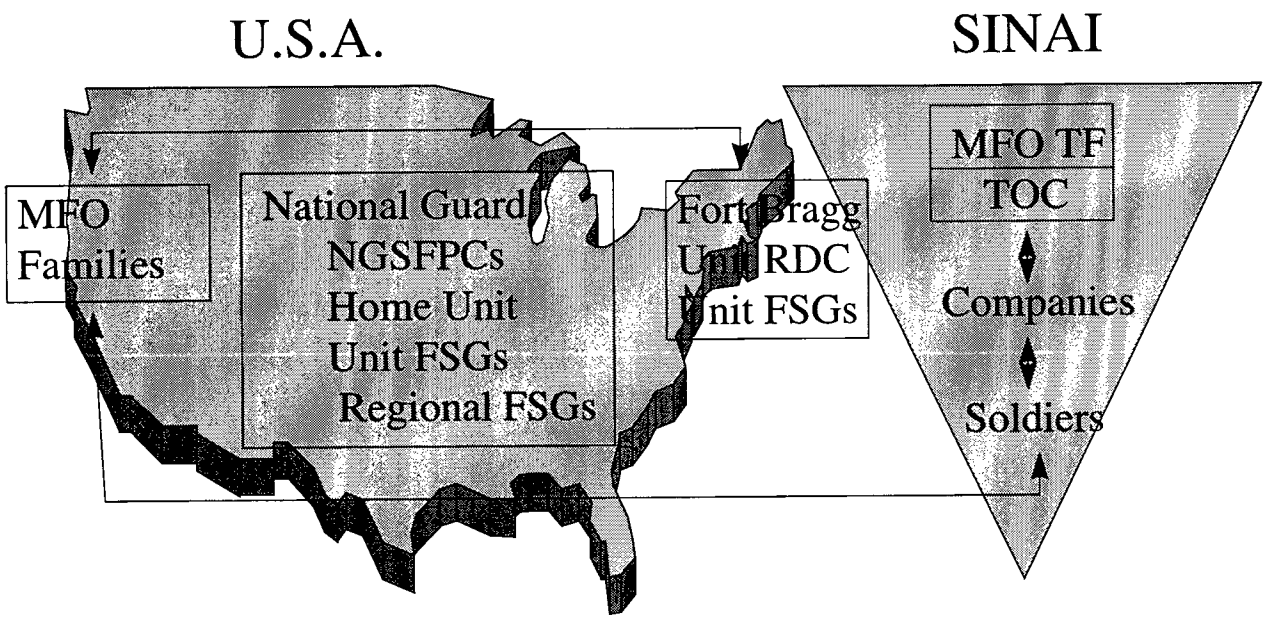

Figure 14-2.
Source: Interviews and Observations (4/94 - 4/95)

deployment stress, telephone numbers, and general information about the MFO. However, it fell short in several areas. It was delivered in January when the unit deployed. This was too late to use much of its advice. It focused too much on Fort Bragg operations and was not well organized. For example, it would have been more useful if it had provided:

- A separate list of helpful phone numbers (not imbedded in the text);
- Separate sections of information for those living at Fort Bragg and elsewhere;
- The unit 1-800 number (approved too late for inclusion);
- More specific MFO information (e.g., time difference to the Sinai, telephone calling plans, audio quality of telephone calls, advice on when and how to call the soldiers and costs);
- More current list of other military helping agents.

The unit also published seven issues of a **battalion newsletter** known as the "Panther Paw." It contained information about who the leaders were, upcoming social and family support activities, and limited information about how to deal with deployment stress. All of the articles for the newsletters came from the battalion staff. Thus there was an emphasis on the unit's mission and the Army activities. There were relatively few articles on family matters (e.g., births, marriages, human interest stories, or advice on coping with deployment stresses).

The unit was fortunate to have as one of its early volunteers from the ARNG a Chief Warrant Officer whose ARNG job was in the area of family assistance and who was highly committed to serving as the FAO.[7] This individual became the FAO even before the unit was fully formed and continued to assist families as a part of the RD. Unit leaders felt that having a single individual who was charged with helping families throughout the lifecycle of the unit was one of their better ideas. The FAO was greatly helped by having a **toll-free telephone** line for the battalion which was staffed on a 24-hours-per-day basis. The toll-free

7 Having an FAO (which is not standard position in an ordinary combat unit) was planned from the start. Given that there is no Army school that is geared to train an FAO, getting an individual who was prepared to do all of the requirements of the job was very lucky.

number not only allowed the families to "plug into" an Army helping system but it also allowed the FAO to communicate easily with other helping professionals.[8]

The FAO kept a list of soldier and family problems that he and others in the RD had encountered and addressed. That list showed the great variety of tasks RDs do which help soldiers and their families. These activities included: sending flowers to the families that had experienced a death, following up on Red Cross messages; putting families in touch with agencies (e.g., Army Emergency Relief) that could help them with financial problems; helping them obtain identification (ID) cards for dependents or powers of attorney, and supporting the unit's FSG. The RD also handled more difficult problems, such as a soldier or spouse threatening divorce, through referral to appropriate agencies.

The commander's wife and the battalion staff who were very concerned with family matters traveled to various functions in Virginia and Maryland. They talked to the RC soldiers and their families about the MFO mission and the efforts that the unit was making to support families. For example, the 29th ID(L) of the ARNG, which draws most of its members from either Virginia or Maryland, held three **soldier-family orientations** at its home station—Fort Belvoir, VA. Those two day events (1 day for Virginia Guardsmen and 1 day for Maryland Guardsmen), held in April, July, and September 1994, were not only attended by a good part of the 28th Rotation's command group, but also by the commander's wife and the Virginia and Maryland's NGSFPCs. These events gave the soldiers and their families an opportunity to learn what the deployment would be like and what family support mechanisms would be available, as well as to meet other unit spouses from their state. As the head of the unit's FSG, the commander's wife continued to attend family-oriented events in Virginia and Maryland even after the unit deployed.

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8 Although the system worked well, there was a downside to having family support handled by the battalion staff (i.e., the Commander, the S-1, and the FAO). Battalion staff tended to treat the company leaders as sources of information in an "action" the staff was handling rather than as full partners in taking care of the company's soldiers. This role shift caused some resentment, particularly among RC leaders who were more used to handling their own soldiers' problems.

The unit's FSG. The unit had an FSG which was located at Fort Bragg. This group was responsible for both unit social events and the support/educational events that were held once the bulk of the soldiers had deployed to the Sinai. The FSG was organized at the battalion level with the points of contact at the company level. The designated leaders tended to be officers' wives, though there were some notable exceptions.

Predeployment social events were well attended. Postdeployment meetings tended to draw the same individuals-15 or 20 people per function. Those who attended FSG meetings found them to be valuable, particularly as a way of making friends with other spouses. In this unit, the FSG seemed to refer to the FAO many of the family problems that FSGs traditionally get involved with in other units.[9]

National Guard State Family Program Coordinators (NGSFPCs). The primary questions NGSFPCs asked our ARI interviewer were: (1) Are the families of the 28th Rotation getting the services they need? and (2) Do the RC families understand AC family programs, policies, and practices? Many of these NGSFPCs stated that they knew too little about the 28th Rotation and that they found that the best source of information was Virginia's NGSFPC. Another valuable source of information was the 1993 National Guard Bureau's National Workshop. Half of the NGSFPCs were dissatisfied with the completeness and timeliness of the information that had been given them by their own or higher headquarters.

About half (55%) of the NGSFPCs that ARI was able to reach said that they had established contact with the MFO unit. Most of the others had tried but were unsuccessful in reaching it. The NGSFPCs who had made contact with the MFO unit praised the performance of its FAO.

Most NGSFPCs felt that there were relatively few family problems that needed to be addressed. They did, however, provide assistance by helping families get information on the welfare of their soldiers, how to use CHAMPUS, powers of attorney, and the AC Army pay system. Some spouses also wanted and received help with budgeting, getting AC

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9 Interviews showed that most spouses knew about the FAO and the toll-free telephone number. Also, most spouses found the FAO to be very helpful.

Army ID cards, tax information, and childcare. The primary "service" that NGSFPCs provided to the RC families of the 28th Rotation consisted of NGSFPC or volunteer contacts via the telephone, mail, or briefings. Similarly, most of the assistance offered was in the form of providing information or referral to an existing service.

The bulk of the RC soldiers came from the 29th ID(L). Therefore, it is not surprising that the majority of the RC soldiers came from its two main states, Virginia and Maryland. Nor is it surprising to note that the NGSFPCs from these two states were quite active in providing family support for this mission. Both states tried to organize local FSGs in the areas with the most troops (e.g., Baltimore). However, they had more success with regionally based events. For example, Virginia held regional family support workshops in four different locations that covered such topics as coping with separation, FSG operations, and reunion issues (Harman, 1995b). The Virginia and Maryland NGSFPCs were particularly active in calling the spouses of unit members to ensure that they were doing well. Maryland's NGSFPC also found ARNG spouses with prior deployment experience to keep in contact with the MFO spouses living in Maryland.

Other local family support mechanisms. Interviews, unit records, and respondent comments on ARI questionnaires indicated that much of the help the families received came from local agents or agencies. The 28th Rotation usually contacted the RC soldier's home unit for help, which was given by unit leaders or someone in the unit's FSG. Through the distribution of spouse questionnaires we learned that many of the problems the families were experiencing during the deployment were rather ordinary problems of living which did not require Army help (e.g., automobile and home repairs, and relations with in-laws).

Geographical Differences in the Family System

The interviews with NGSFPCs, attendance at unit functions, and interviews with other interested parties all suggest that families living in either Virginia or Maryland (the home area of the 29th ID[L]) had better access to Army services than those families living elsewhere (the outlying states). Since the presence of geographically dispersed families was one of the key features of the MFO experiment, the survey data were

used to contrast how the support system and family adaptation differed between those living in the "home area" and those living in the "outlying states." The results of those analyses (Bell, Segal, & Rice, 1995) are summarized here.

The sources for soldier data were the initial predeployment (August and October 1994) and middeployment (May 1995) soldier questionnaires. The source for spouse data was the middeployment questionnaire (April 1995). Further details on data collection have been presented earlier in this book (Phelps, Chapter 2). Whether or not soldiers and their families sought military help depended not only on whether they experienced difficulties but also whether they had the physical and psychological skills to address the problems without additional help. The analyses showed that the home area and outlying state groups were remarkably similar in terms of marital characteristics, social network, and attitudes/expectations about the Sinai mission. The two differences that did emerge (level of civilian education and home ownership) favored those from outlying states. For example, 63% of the soldiers from outlying states had some college education compared to only 34% of the soldiers from the other states; the rates for home ownership were 55% and 32%, respectively, even though rank differences were not significant.

Differences in rates of home ownership may have accounted for the fact that those in outlying states were *more* worried, when they first arrived at Fort Bragg, about household repairs. However, it does not explain why those from outlying states were also *more* worried about their family's safety and health. Those differences may be explained by looking at the "services" that the soldiers believed their families were using. Soldiers from outlying states were *less likely* to say that their families had received ARNG flyers in the mail or to have used the help of other military spouses.[10]

Taken altogether, the increased worry seemed to be a function of a lack of someone the soldier could trust to help his spouse. That is, he

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10 Note that using the help of military spouses is not the same as using FSGs. There is a difference among RC families in the "use" of military spouses even though there is not a difference in either use of FSG services (which may have been delivered by mail or by telephone) or actual attendance at FSG functions.

feared his spouse was not getting *emotional support* from the people who most understood what a deployment was all about—military spouses.[11] Likewise, such soldiers' spouses were not getting the instrumental or *concrete* help represented by the actions of the NGSFPC (e.g., sending a flyer). Another factor that may have added to the worries of soldiers from outlying states was that more of them were recruited later and thus missed the soldier-family orientations, had less time to get their affairs in order, and had less time to see how well most military spouses can and do cope with these deployments (Bell, 1991).

In addition to reporting on worries, soldiers were also asked to estimate how MFO service would affect (or had affected) their marriages, their children, and their roles as parents. Although 48% of the soldiers from outlying states expected negative effects on their marriage and 20% expected negative effects on parenting relationships (compared to 40% and 32%, respectively, for soldiers from Virginia/Maryland), those apparent differences were not significant statistically. There was no geographical difference on this measure and no change over time. There were no geographical differences in family finances, tendency to relocate, or whether family difficulties affected the soldiers' perceptions about their ability to perform the MFO mission. Although 86% of soldiers from outlying states reported their spouses as being supportive compared to 82% from the other states, the difference was not significant. There was also no geographical difference in the level of spouse support for having the soldier participate in the MFO mission. However, there was a difference in this level of support over time. As we have seen in other deployments (Bell et al., 1996), the level of support declined over time for all groups.

The predeployment (August and October 1994) and middeployment (May 1995) soldier questionnaires, along with the questionnaire for the married soldiers' spouses (April 1995), were used as the sources for the analyses that follow. The specific topics covered were: (1) participation in family support activities, (2) use of family support services, (3)

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11 Prior literature (Bell et al., 1995) shows that military spouses really want to be associated with others who are experiencing or have recently experienced the same stresses they are currently undergoing. In other words, they wanted to be associated with other military spouses.

evaluation of the support system, and (4) how family support affected soldiers and their families.

Participation in Family Support Activities

Participation in predeployment meetings. Table 14-1 shows the percent of soldiers and spouses who attended two predeployment events: the joint 29th ID(L)-28th Rotation soldier-family orientation meetings at Fort Belvoir (April, July, and September 1994) and the unit activation ceremony (November 1994).

Twenty-two percent of the married soldiers said that some family member (probably their spouse) attended the soldier-family orientation meeting. Since that meeting was held by the ARNG for ARNG families, it is not surprising RC soldiers would have a much higher participation rate than the AC soldiers. In fact, the only AC family member that the researchers remember seeing was the 28th Rotation Commander's spouse; only one active duty spouse reported that she had attended the orientation. The attendance was not expected to be 100% among the RC families. Some spouses did not need soldier-family orientation; some could not afford the trip; some had prior commitments; and some were not invited (their soldiers joined the unit after the orientation had been held).

Attendance was higher for the unit activation ceremony: 37% of the soldiers and 49% of the spouses said that a family member had attended that function. The fact that spouses reported a higher attendance rate than did soldiers is probably due to peculiarities in the spouse sample.[12]

Participation in activities during the deployment. Table 14-2 presents both soldier and spouse accounts of whether the spouses attended: FSG meetings at Fort Bragg, FSG meetings held elsewhere, teleconferences between spouses and the soldiers in the Sinai, and

12 The spouses that responded to the spouse survey were remarkably similar to those who did not on most variables. However, they were more likely to be Caucasian, well adjusted to Army life (at least in the eyes of their soldier spouses), and more likely to be married to AC soldiers relatively high in rank. Many of these characteristics, in turn, are associated with being at Fort Bragg and being active in attending unit events such as the activation ceremony.

Table 14-1

Percentage of Family Members or Spouses Who Attended Predeployment Meetings

Meeting Source	Group	Percent Attending
MFO Activation Ceremony:		
Soldiers	All Married	37
Spouses	All	49
Fort Belvoir Orientation:		
Soldiers	All Married	22
	Active Component	7
	Reserve Component	29 ($p < .01$)
Spouses	All	28

Source. Soldier deployment survey, question 13; Spouse survey, question 9.
Note. Other than as shown, chi-square analyses revealed no significant

ARNG-sponsored family support workshops held in Virginia or Maryland.

Analyses from both the married soldier and spouse questionnaires showed that spouses living in the Fort Bragg area were much more likely than spouses living elsewhere to have attended a Fort Bragg-based FSG meeting. Both the soldier and spouse questionnaires showed the same results with regard to which Fort Bragg area spouses attended the meeting. That is, there were no AC/RC or soldier rank differences among those who attended.[13] Fort Bragg area spouse attendance (i.e., 67% to 69% had attended at least one FSG function) was unusually high compared to other FSGs (Bell et al., 1996) and suggests that the FSG was meeting at least some of the needs of those living in the Fort Bragg area.

13 The spouse surveys contained a rank difference that reached the .10 level of significance. If the sample had been larger, this difference (spouses married to higher ranking solders were more likely to attend) might well have reached the required .05 level of significance.

Table 14-2

Percentage of Families Participating in Family Support Activities During Deployment

Activity Source	Group	Percent Attending
Family Support Group/Fort Bragg:		
Soldier	All Married Soldiers	20
	All Married Soldiers whose families lived near Ft. Bragg	69
	All Married Soldiers whose families lived away from Ft. Bragg	3 ($p < .001$)
	Among Soldiers whose families lived near Ft. Bragg:	
	Active Component	72
	Reserve Component	50 (n.s.)
	Officers	88
	NCOs	61
	Junior Enlisted	50 (n.s.)

(table continues)

Attendance at FSGs outside of the Fort Bragg area was much lower (i.e., 19% to 29% of the spouses). Not surprisingly, those who attended these non-Fort Bragg meetings tended to live outside of North Carolina. There were no AC/RC or rank differences in those who attended. As reported earlier, there were also no geographical (home area vs. outlying states) differences in FSG attendance (Bell et al., 1995).

The teleconferences were held at Fort Bragg, Fort Lee, VA, and Fort Meade, MD. Given the location of these events, it is not surprising to see that where the spouse lived greatly affected whether or not they attended (Table 14-2). Even at Fort Bragg (where distance to the telephone site was not a issue), we could not have expected 100% attendance, since approximately 40% of the soldiers at any given time were "on station" at MFO outposts where there were no telephones.

Relatively few spouses (i.e., 8% to 15%) attended regional family support workshops for families. Restricting the sample to the states (VA/MD) where we were sure these events took place did not appreciably raise the numbers. This suggests that some of the other states

Table 14-2 (Continued)

Percentage of Families Participating in Family Support Activities During Deployment

Activity Source	Group	Percent Attending
Family Support Group/ Fort Bragg (continued):		
Spouses	All	22
	Spouses who lived near Ft. Bragg	67
	Spouses who lived away from Ft. Bragg	8 ($p < .001$)
	Among Spouses who lived away from Ft. Bragg:	
	Active Component	73
	Reserve Component	50 (n.s.)
	Officers	100
	NCOs	50
	Junior Enlisted	0 ($p < .10$)
Family Support Group/Not Fort Bragg:		
Soldier	All Married Soldiers	19
	All Married Soldiers whose families lived outside North Carolina	24
	All Married Soldiers whose families lived in North Carolina	3 ($p < .05$)

(table continues)

must have also held events that the spouses interpreted as "regional meetings." However, we have no information about what those meetings might have been.

Use of Family Support Services

Helping agents or agencies. During deployments families often reach out for help to either an organization that is designed to provide

Table 14-2 (Continued)

Percentage of Families Participating in Family Support Activities During Deployment

Activity Source	Group	Percent Attending
Family Support Group/Not Fort Bragg (continued):		
Soldier	Among All Married Soldiers whose families lived outside North Carolina:	
	Active Component	7
	Reserve Component	28 (n.s.)
	Officers	60
	NCOs	24
	Junior Enlisted	24 (n.s.)
Spouses	All	31
	Spouses who lived away from Ft. Bragg	29
	Spouses who lived near Ft. Bragg	13 (n.s.)
	Among Spouses who lived away from Ft. Bragg:	
	Active Component	0
	Reserve Component	32 (n.s.)
	Officers	75
	NCOs	25
	Junior Enlisted	29 (n.s.)

(table continues)

help or to other, more personal support systems such as relatives who, although not part of a helping agency, can be expected to provide assistance. The family support literature generally refers to the help given by organized agencies as "**formal support**" and the help rendered by friends and relatives as "**informal support**." Both soldier and spouse accounts of the extent to which the soldiers and/or their families made use of these types of help is displayed in Table 14-3.

Table 14-2 (Continued)
Percentage of Families Participating in Family Support Activities During Deployment

Activity Source	Group	Percent Attending
Teleconferencing:		
Soldier	All Married Soldiers	21
	Families lived near Ft. Bragg	63
	Families lived in Virginia or Maryland	9
	Families lived elsewhere	8 (p <.001)
Spouse	All	29
	Lived near Ft. Bragg	56
	Lived in Virginia or Maryland	21
	Lived elsewhere	8 (p< .01)
National Guard MFO Workshops:		
Soldier	All Married Soldiers:	8
	Active Component	2
	Reserve Component	10 (n.s.)
	Among RC families living in Virginia or Maryland	11
Spouse	All	15
	Among RC spouses living in Virginia or Maryland	21

Source. Soldier deployment survey, question 13; Spouse survey, question 9.
Note. Other than as shown, chi-square analyses revealed no significant differences (p< .05) in percentages as a function of component or rank.

The Army services used by married soldiers and their families were different for different groups. According to the husbands, the service that was most likely to be used was the RD (31%).[14] Other services reported by husbands as relatively frequently used were legal services (24%), FSG

14 AC soldiers and officers were the most likely soldier groups to use the RD.

Table 14-3

Reported Use of Family Support Services by Soldiers and Spouses During the MFO Deployment

Service/Agency	Percentage Use by Soldiers: All Married	AC/RC	E/N/O	Percentage Use by Spouses: All
Formal, Army Support:				
Rear Detachment Command (RDC)	31	46/23	22/26/71	46
Family Support Groups (FSG)	18	23/13	12/16/57	34
Army Legal Services	24			11
Army Chaplains	18		24/12/11	7
Army Financial Services	16			3
Army Community Services (ACS)	8			6
Army Emergency Relief (AER)	7			5
Army Social Work Services	3	5/1		2
Army National Guard State HQ	5[a]			15[a]
Your National Guard/Reserve	25[a]			46[a]
Formal, non-Army Support				
American Red Cross	10			6
Local civilian support services or agencies	4			5
Professional counselors	4	11/0		3
Informal Support:				
Your extended family members	54			88
Friends/Neighbors	44		32/44/86	85
Other Army/National Guard spouses	17		10/18/57	36
Your supervisors at your job	17			36
Your coworkers	15		5/15/57	47
Church members	18			26

Source. Soldier deployment survey, question 14; spouse survey, question 11.

Note. Differences for component and rank are shown only when either statistically significant or substantially different.

[a] RC data only.

services (18%)[15], Chaplain services (18%)[16], and financial services (16%). Twenty-five percent of the RC soldiers reported that they and/or their families had made use of their RC unit.

In general, *spouses* were more likely than *soldiers* to report using Army services. For example, 46% used the RD, 34% used an FSG, and 11% used Army legal services. RC spouses also reported a higher use of the RC unit (46%) and ARNG state headquarters (15%) than did the soldiers. This interaction probably consisted of some contact with their state NGSFPC. These use rates are much *higher* than were seen in the first MFO (Bell et al., 1996) but lower than in either Operation Restore Hope (ORH) in Somalia or Operation Joint Endeavor (OJE) in Bosnia (Bell, 1996).

As we have seen in other deployments (Bell and Teitelbaum, 1993), the use of non-Army agencies was quite low. According to unit records, the main use of the American Red Cross was to get messages to the soldiers and to verify serious illness and other family events.

As expected, both soldiers and spouses were much *more* likely to report that they made more use of the "services" of family and friends/neighbors than either Army or non-Army agencies. The spouses were more likely to report that they (or someone else in the family) made use of these services than did the soldiers. The only readily available comparison is to the AC spouses during ORH. This comparison shows that the MFO spouses made less use than did ORH spouses of these kinds of informal supports. The exception was that MFO spouses made *much more* use of other Army spouses and *much less* use of coworkers than was seen in ORH (Bell and Teitelbaum, 1993). Usage rates for other forms of informal support are much lower than they are for family and friends.

Receipt of printed materials. Table 14-4 shows, according to the soldiers and their spouses, what percent of the families received printed support materials from the unit and the ARNG. More than three fourths of the married soldiers and their spouses reported that their families had

15 The groups of soldiers or families that were most likely to use FSGs were AC soldiers and officers.
16 The group that was most likely to use Chaplains was the enlisted soldiers.

Table 14-4

Information Sources Received by Families According to Soldiers and Spouses During the Deployment

Source of Information	Percent Families Who Received Information: Married Soldier Report	Spouse Report
Married Soldiers:		
Battalion newsletter	76	94
Battalion Family Support Handbook	82	81
National Guard flyers	55[a]	33[a]
National Guard letters	51[a]	35[a]

Source. Soldier deployment survey, question 6; spouse survey, question 8.

[a] ARNG respondents only, since Army National Guard materials were only sent to Army National Guard members.

received the battalion newsletter and *Family Support Handbook* (TF 4-505 PIR, 1994). Only about half of ARNG soldiers and one third of the ARNG spouses said that their families had received ARNG flyers or letters. The data show that the reason for the lack of ARNG coverage was that most of the NGSFPCs outside Virginia and Maryland were not sending these materials to the participants from their states (Bell et al., 1995).

Receipt of other important information. Spouses were asked whether they had received any information about the mission, benefits, and family support issues (Table 14-5). Most (74% to 96%) of the spouses said that they received it. The type of information they were least likely to receive was information about the MFO before the soldier joined the unit, information about communicating with soldiers in the Sinai, and information about children's adaptation to the stresses of deployments.[17]

17 As expected, families with children were much more likely than those without children to get information about children's adjustment (93% vs. 63%). We expected that since RC soldiers were "recruited" for this mission, they would be more likely to have received information about all aspects of it. However, there were no AC/RC differences in terms of the kinds of information received.

Table 14-5

Percentage of Spouses Receiving Army Information on the Mission, Benefits, and Family Support Issues

Topic	All Spouses
Mission of the MFO Task Force *before* soldier joined	74
Mission of the MFO Task Force *since* soldier joined	94
How to use Army benefits while you are with the MFO Task Force	90
Cost of telephone calls to the Sinai	83
Information on how to make calls from the Sinai to the United States	87
Information on how to make calls from the United States to the Sinai	85
Information on what the Army will do to help meet the needs of soldiers families during this peacekeeping mission	94
Information on adjustment to family separation	96
Information on children's adjustment to family separation	85

Source. Spouse survey, question 1.
Note. None of the differences by component or rank were significant ($p < .05$).

Family support via telephone contacts. Given the wide geographical spread of the families and the availability of toll-free telephones in both the unit RD and the ARNG headquarters, we expected to see a great deal of the family support being delivered via the telephone. Tables 14-6 and 14-7 show the percentage of families that the soldiers and spouses, respectively, said received a telephone call from an Army agent or agency.

What happened? Although spouses were more likely than soldiers to report that they had received Army support telephone calls,[18] the level of calling was nowhere near the 100% that some of the interviews suggested would occur for each of the agencies involved: the unit, the RC unit, and the NGSFPC. However, the combination of those calls that did occur resulted in 96% of the spouses reporting that they received at least one call from someone.[19]

18 The most likely explanation for this discrepancy is that the spouses did not notify the soldiers that they received these various calls.

19 There was a definite tendency for AC agents/agencies to contact AC families and RC agents/agencies to contact RC families. However, the unit did not attempt to duplicate the highly successful ARNG program in North Carolina that called each of the spouses during the months of their birthdays and wedding anniversaries to check on the spouses' well-being and to wish them well during the deployment (Bell et al., 1996).

Table 14-6

Family Support Calls Received by Families/Spouses During the MFO Operation (Soldiers' Account)

	Percent Received	
	All	AC/RC
Your company at Fort Bragg	12	21/8**
The MFO Task Force Rear Detachment at Fort Bragg	30	40/24+
National Guard Family Program Coordinator	21[a]	
The Pentagon	3	
Your Army National Guard unit	31[a]	
Army National Guard regional volunteer	6[a]	
An Army spouse who is a friend	20	
Some other Army spouse	20	

Source. Soldier deployment survey, question 12.
[a] RC data only; + $p < .10$; * $p < .05$; ** $p < .01$.

Evaluation of the Support System

Spouse knowledge of relevant deployment information. Table 14-8 shows soldier estimates of what spouses knew about key family documents and communication with spouses in the Sinai. It is clear that soldiers, as a group, knew a lot more about documents than they did about communication. The most likely reason for this difference is that the documents were more relevant than communication issues at that time (August-October 1994). Both the soldiers and their spouses needed to get the family documents in order before the soldier joined the unit. They did not need to know about telephone calls, etc. until January 1995. The main advantage to the families knowing at that time is that it may have helped them to plan and thus reduce their anxieties.

Most of these measures also showed component and rank differences. That is, AC soldier families knew more than RC families. Also, officer (and sometimes NCO) families knew more than enlisted families. These findings suggest that soldier orientation should be

Table 14-7

Family Support Calls Made to Families/Spouses During the MFO Operation (Spouses' Account)

	All	AC/RC	E/N/O
Your company at Fort Bragg	29	58/18**	
The MFO Task Force Rear Detachment at Fort Bragg	46	68/37*	
Army National Guard Family Program Coordinator	43[a]		
The Pentagon	13	28/6*	
Your Army National Guard unit	45[a]		
Army National Guard regional volunteer	27[a]		22/21/80[a]*
An Army spouse who is a friend	47		28/50/88
Some other Army spouse	40		

Source. Spouse survey, question 7.

[a] RC data only; * $p < .05$; ** $p < .01$

improved in future deployments. However, there was ample time to give the soldiers and families this information prior to the deployment.

Satisfaction with support information received. Table 14-9 presents soldier and family perceptions of the adequacy of Army information about the mission, benefits, and family support issues. About one third to three fifths of the soldiers were satisfied with the information they received on critical issues such as Army benefits, costs, and the mission. The area of greatest dissatisfaction was information known prior to the deployment, which again points to the area of soldier orientation back at the previous AC or RC unit. The percentage of spouses who were satisfied with the information they received varies from 25% (the cost of calls to the Sinai) to 62% (the details about the mission once the soldier joined). The fact that the spouse responses were being gathered in April 1995 suggests that the spouses should have received this information by then—that is 7 to 9 months after the soldier joined the unit and 4 months after he went to the Sinai. The satisfaction levels for junior enlisted soldiers and their spouses were even lower for some of the items in Table 14-9, suggesting that action should have been taken earlier in the operation.

Table 14-8

Percentage of Married Soldiers Who Believe Their Spouses Know Army Procedures and Documents

Procedure/Document	Percent Reporting "Yes" All	AC/RC	E/N/O
Procedures and Documents:			
Location of insurance, other documents	92	100/88	
How your pay entitlements are handled	90	98/86	80/96/88
Your total family financial obligations	90		
Insurance entitlements	88	98/82	
Procedures for contacting soldier in an emergency	83		
Military pay and allowances	77	96/66	59/84/88
How to read your LES	72	100/58	57/82/77
U.S. Army casualty notification procedures	46		
Communications:			
How to send mail to the Sinai	35		
How to send audiotapes and videotapes to the Sinai	32		
How to contact soldier by telephone in the Sinai	20	29/15	14/19/41
How to FAX a message to the Sinai	16		15/14/29
How to use MARS radio system to talk to soldier in the Sinai	11	14/9	
How to use electronic mail (E-mail) to send messages to the Sinai	9	16/5	5/9/12

Source. Predeployment soldier survey, question 21.

Note. All AC/RC and rank differences shown are significant ($p < .05$).

Leader family knowledge and concern. These questions (Table 14-10) were asked shortly after the soldiers arrived at Fort Bragg. Therefore, it was more a test of what the soldiers expected than what they had observed. Nearly all the soldiers (87% to 90%) thought that the unit leaders were knowledgeable and concerned about families. Fewer soldiers thought that the unit leaders encouraged family activities (66%). The only difference of opinion on these matters involved family activities: the more senior the soldier, the more he thought that the leaders would encourage such events.

Counting on the leader for help (soldier). The questions in Table 14-11 were also asked shortly after the soldiers arrived at Fort Bragg. The analyses show that more soldiers had confidence that they would

Table 14-9

Percentage of Soldiers and Spouses Reporting Satisfaction With Army Information on the Mission, Benefits, and Family Support Issues

Topic	Soldiers	Spouses
How to use Army benefits while you are with the MFO Task Force	50	NA
How spouses and family members can use Army benefits	47	57
Cost of telephone calls to the Sinai	NA	25
Information on how to make calls from the Sinai to the United States	37	56
Information on how to make calls from the United States to the Sinai	32	45
Information on what the Army will do to help meet the needs of soldiers families during this peacekeeping mission	45	52
Information on adjustment to family separation	NA	50
Information on children's adjustment to family separation	NA	51
MFO mission information before soldier volunteered	31	45
MFO mission information after soldier volunteered	60	62

Source. Soldier predeployment survey, question 1; spouse survey, question 1.
NA = Not asked on the survey.
Note. None of the differences by component were significant ($p < .05$). For the first two items, rank differences for soldiers were significant ($p < .05$), with the percentages of junior enlisted, NCOs, and officers being 58/40/71% and 60/31/77%, respectively. For the last two items, rank differences were also significant ($p < .01$), at 30/23/71% and 67/48/88%, respectively.

receive needed help with a personal or family problem from an MFO Task Force leader than from any of the other helping agents listed in the table (e.g., the unit RD). Officers were more likely than enlisted soldiers to say that one could depend on unit leaders and the unit RD for help with a personal/family problem.

Counting on the leader for help (spouses). The final set of these predeployment leader questions concerned whether the soldiers thought that *their spouses* could also count on the leaders if they had a personal or family problem (Table 14-12). There is one AC/RC difference here. More AC than RC soldiers felt that the Fort Bragg-based FSG would help their spouses. A higher percentage of officers than enlisted soldiers were sure that the RD would help their spouses. In contrast, NCOs were much less likely than either officers or junior enlisted soldiers to believe that either the Fort Bragg or non-Fort Bragg FSGs would help their spouses.

Table 14-10

Soldier Perceptions of Leadership's Knowledge of Family Programs and Concern for Families

Concern	Percent of Married Soldiers Responding "Moderate to Very Great Extent"
Unit leaders encourage unit-wide family activities	66
Unit leaders know about Army family programs	90
If war broke out, unit leaders would be concerned about family welfare	87

Source. Soldier predeployment survey, question 5.

Note. The only significant difference by rank or component was for rank and the first item ($p < .01$), with 54/66/100% of junior enlisted, NCOs, and officers, respectively, responding moderate to very great extent.

Table 14-11

Percentage of Soldiers Who Believe **They** Could Count on the Leaders to Help With Personal/Family Problems

Group	For Help for Own Personal or Family Problem		
	All	AC/RC	E/N/O
MFO Task Force leaders	81		82/80/85**
Local RC Component leaders	74[a]		
MFO Rear Detachment	73		69/73/93*
MFO Fort Bragg Family Support Group	74		
Other Family Support Group	73[a]		

Source. Soldier predeployment survey, question 3.

[a] Figures are from reserve component soldiers only since items are more relevant to RC family needs; * $p < .05$; ** $p < .01$.

Table 14-12

Percentage of Soldiers Who Believe **Their Spouse** Could Count on the Leaders to Help With a Personal/Family Problems

	For Help for Spouse/Friend's Personal or Family Problem		
Group	All	AC/RC	E/N/O
MFO Task Force leaders	66		
Local RC Component leaders	76[a]		
MFO Rear Detachment	67	69/65*	63/67/82*
MFO Fort Bragg Family Support Group	67		77/55/88*
Other Family Support Group	60[a]		73/35/73**

Source. Soldier predeployment survey, question 20.

[a] Figures are from reserve component soldiers only since items are more relevant to RC family needs;

* $p < .05$; ** $p < .01$.

Spouse confidence in leader helpfulness. Table 14-13 shows the *spouses' views* of whether they could count on various sources of support. Note that these views were being rendered at the midpoint of the deployment (i.e., about 6 or 7 months after the soldiers gave their opinions). The percentage of spouses who reported being able to count on the RD for help was about the same as we saw for the soldiers (Tables 14-11 and 14-12). All of the other percentages were *much lower.*

There is also a sizable (and nearly significant) difference between AC and RC spouses with regard to the potential helpfulness of the Fort Bragg FSG. While 67% of the AC spouses reported that they could count on FSG support, only 27% of the RC spouses made that statement. That difference is probably realistic, since the Fort Bragg FSG tended to refer RC problems (which tended to occur at some distance from Fort Bragg) to other agencies (mostly the FAO).

Helpfulness of support agents/agencies. In Table 14-3 soldiers and spouses were asked whether they (or someone in their families) had made use of 19 potentially helpful agents (friends) or agencies (FSGs). Table 14-14 presents soldier and spouse ratings. Both soldiers and spouses made their ratings at essentially the same point in time: April-May 1995, which was the midpoint of the deployment. Since respondents were asked whether the agent/agency was helpful to them or to others, their

Table 14-13

Percentage of Spouses Who Believe **They** Could Count on the Leaders to Help With a Personal/Family Problems

Group	For Help for Own Personal or Family Problem All Spouses
MFO Task Force leaders	35
Local RC Component leaders	47
MFO Rear Detachment	62
MFO Fort Bragg Family Support Group	37
Other Family Support Group	46

Source. Spouse survey, question 10.
Note. There were no significant differences ($p < .05$) by component, although 67% of AC spouses counted on the Fort Bragg FSG compared to only 27% of the RC spouses ($p < .06$).

answers were a mixture of personal experiences and the general reputation of the helping service.

The agents more soldiers and spouses rated as helpful were their family and friends. Other agencies that at least 67% of the *soldiers* rated as helpful included: Army legal and financial services and the American Red Cross.

Spouses were much more likely than soldiers to rate agents and agencies as helpful. In addition to friends and relatives, at least 67% of spouses rated the following agents/agencies as helpful: the RD, FSGs, coworkers, Army spouses, church members, Army chaplains, and the American Red Cross. Although the differences are not always statistically significant, the pattern is the same for virtually every agent: AC soldiers and spouses were more likely than RC soldiers and spouses to see the agent/agencies as helpful. Likewise, among soldiers (where the sample is large enough to more easily find differences), the higher the rank, the more likely that the rank group would say that the service was helpful. It would be interesting to speculate about why some of these differences occurred. Is a given service rated as less helpful because they did a bad job for one or more clients or because it was unavailable or irrelevant for the respondent's situation?

Table 14-14

Soldier and Spouse Ratings of Helpfulness of Potential Support Agents/Agencies

	Percent Rating of Helpful by				
		Soldiers		Spouses	
Service/Agency	Married	AC/RC	E/N/O	All	AC/RC
Formal, Army Support:					
Rear Detachment Command (RDC)	61	65/59		80	91/75
Family Support Groups (FSG)	56	72/49	57/44/100*	85	100/80
Army Legal Services	73	81/68		62	100/38*
Army Chaplains	64	75/59		69	100/58
Army Financial Services	67	77/63		50	100/38
Army Community Services (ACS)	57	73/47	32/67/100**	46	67/38
Army Emergency Relief (AER)	54	63/50	39/55/100*	46	100/33
Army Social Work Services	43	67/82*		38	100/17*
Army National Guard State HQ	31[a]	—	30/11/100*	42[a]	
Your National Guard/Reserve	52[a]	—		78[a]	—
Formal, Non-Army Support:					
Red Cross	67	82/60	48/75/100*	67	100/64
Local civilian support services or agencies	42	55/37		46	0/50
Professional counselors	42	67/33*		36	100/25*
Informal Support:					
Your extended family members	89	90/88		98	100/98
Friends/Neighbors	78	93/71*	62/84/100*	91	100/89
Other Army/National Guard spouses	58	58/58		72	100/63*
Your supervisors at your job	52	73/44	38/48/100*	65	71/63
Your coworkers	62	88/51*	40/65/100*	79	88/77
Church members	62	80/55		71	100/65

Source. Soldier deployment survey, question 14; spouse survey, question 11.
[a] RC data only; * $p < .05$; ** $p < .01$.

Soldier recommendations for future MFO units. Most of the items in Table 14-15 are features of the 28th Rotation's family support system. In recommending these features of the system for some future system, the soldiers are, in effect, saying that the features of the 28th Rotation's family support system worked well. Most soldiers either agreed or strongly agreed with all 19 suggestions. The only ones that were endorsed by less than half of the soldiers were: having an FSG at Fort Bragg (but that suggestion was endorsed by most of the AC soldiers), advising spouses on child management, and limiting future deployments to four adjacent states. The ideas that were endorsed by more than 75% of the soldiers were all the things the unit did (the toll-free line to Fort Bragg, the *Family Support Handbook*, and an orientation for RC

Table 14-15

Soldier Recommendations for Future MFO Family Support Systems

Measures	Percent Married Soldier Agreement
Measures Implemented for 28th Rotation:	
Distribute a Family Support Handbook	77
Orientation meetings for RC families	76
Full-time family assistance officer	74
Battalion newsletters for families	73
Facilitate videotape exchanges from Sinai to home	74
Facilitate videotape exchanges from home to Sinai	72
Family Support Group meetings at other locations	71
Family Support Group meetings at Fort Bragg	43
Active Component	69
Reserve Component	30 ($p < .01$)
Recommend Improvements to Existing Measures:	
Better plan for family emergency leaves	71
More specific, timely, and relevant battalion publications	68
Help spouses deal with local banks/merchants	66
More family time prior to deployment	66
Junior Enlisted	66
NCOs	70
Officers	31 ($p<.05$)
Faster American Red Cross messages	64
More leader training on family problems	62

(table continues)

families) or things the unit did but wished it could have done more often (more free overseas calls and encouraging RC units to write to their soldiers). AC soldiers were more likely than RC soldiers to recommend having an FSG at Fort Bragg. Officers were less likely than others to recommend having more family time prior to deployment or having more free overseas calls.

Table 14-15 (Continued)

Soldier Recommendations for Future MFO Family Support Systems

Measures	Percent Married Soldier Agreement
Proposed Measures:	
Toll-free number to Fort Bragg for families	88
More free telephone calls home	83
Junior Enlisted	80
NCOs	88
Officers	77 ($p < .05$)
Encourage RC units to write soldiers	75
Advise spouses on child management	48
Soldiers from no more than four adjacent states assigned to the MFO	47

How Family Support Affects Soldiers and Their Families

The final test of the family support system was whether participating in any of these support activities, receiving any of these services, or believing that the system would offer support to families had any measurable impact on variables of interest to the Army. The three desirable outcomes were: (1) improved soldier morale, (2) the ability of the family to adapt to Army demands, and (3) the ability of the family to successfully handle its own affairs. The measures for each of these outcomes appear below. The discussion of the three outcomes is followed by a discussion of the 14 family support variables and the relationship of family support to family/Army outcomes.

Individual soldier morale. There were three measures of soldier morale. All of them came from the soldier middeployment questionnaire. The specific questions were: soldier morale, satisfaction with Army life, and changes in soldier willingness to remain in the Army.

Family adaptation to Army life. There were six measures of family adaptation, four from soldier questionnaires and two from spouse questionnaires. The four measures from the soldier questionnaires were: (1) the soldier's estimate of how much the spouse supported the MFO, (2) the soldier's estimate of how the MFO was affecting the marriage, (3) how the marriage was affecting the soldier's estimate of his ability to accomplish his job, and (4) the soldier's estimate of how well the family was adapting to Army life. The two measures from the spouse questionnaire were: (1) spouse's level of support for the soldier being in the MFO, and (2) the spouse's view of how the MFO was affecting her family.

Internal family dynamics. There were four measures for this concept, three from the soldier and one from the spouse. The three measures from the soldier were taken from the middeployment questionnaire. The topics were marital satisfaction, marital stability, and the soldier's estimate of the family's financial situation. The measure from the spouse questionnaire was her estimate of how well the family was doing financially.[20]

Family support measures. Fourteen measures of various aspects of the family support system were examined to see if they were related to the three outcome measures listed. Some of the 14 measures were: the battalion newsletter, the *Family Support Handbook*, ARNG flyers, family support information, receipt of family support telephone calls, spouse knowledge of Army documents and how to communicate, satisfaction with the family support information received, and assessment of leader support for families. We also looked at whether the spouses could count on MFO leaders, RC leaders, the RD staff, the Fort Bragg FSG, and the FSG located outside of Fort Bragg.[21]

Relation of support to Army/family outcomes. Table 14-16 is a summary of all of the individual correlations between each of the

20 Two of these outcome variables are actually a combination of similar questionnaire items which have been combined together to form scales. Marital stability and MFO impact on the families are composed of four and three questions, respectively. The reliability of these scales is quite high (i.e., .80 and above).

21 Six of these predictor variables are also scales. One scale in the middeployment soldier questionnaire is the receipt of family support calls which is composed of nine separate questions. The predictor scales from the spouse questionnaire are: receipt of family support calls (9 questions), satisfaction with Army support information (9 questions), and receipt of Army information (9 questions).

Table 14-16

Summary of Relationships Between Outcomes and Predictor Variables: Percentage of the Correlations That Were Statistically Significant

	Outcome Variables		
Independent Variables	Individual Soldier Morale (3 measures)	Army-Family Fit (6 measures)	Internal Family Situation (4 measures)
Received Battalion Newsletter[a]	33	42	0
Received FS Handbook[a]	33	25	0
Received ARNG Flyers/ Letters[a]	0	38	19
Information Received[b]	33	0	25
Received Telephone Calls[a]	33	33	25
Knowledge of:			
Army Documents	0	17	75
Communications	0	0	0
Satisfaction With Information[a]	33	42	13
Leader Support[c]	33	50	0
Being able to count on:[d]			
MFO Leaders	67	42	0
G/R Leaders	0	25	0
Rear Det Staff	67	42	13
Ft. Bragg FSG	33	25	13
Other FSGs	0	0	38
Average Percentages:	24.3	25.4	14.7

[a] Data from both soldier and spouse at middeployment.
[b] Data from spouse only, at middeployment.
[c] Data from soldier only, at predeployment.
[d] Data from soldier only, at predeployement, with respect to self and spouse.

predictors and each of the outcomes. For example, receipt of the battalion newsletter (according to the soldier and his spouse) had a statistically significant relationship (correlation) with one third of the measures of individual soldier morale. The table shows that one third of the possible correlations was statistically significant by showing one in three as a percent: 33%. Likewise, 5 of the 12 correlations were significant with Army-family fit (42%) and none of the three correlations with the three measures of the internal family situation were statistically significant. Based on this rather crude analysis, it would appear that the relationship between family support and either soldier morale or family adaptation (Army-family fit) was much stronger than between family support and the internal working of the family. That is, the average of all correlations for those two outcomes was much higher.[22]

SUMMARY AND CONCLUSIONS

The 28th Rotation faced some formidable obstacles in putting together its family support system. It was a new unit with no corporate history of how to do things. It received a lot of high-level attention. It had to deal with both AC and RC structures. Finally, its members were drawn from all over the United States.

The support system which was assembled had several distinct parts: (1) the unit prior to deployment, (2) the elements at Fort Bragg after the deployment, (3) the elements in the Sinai, and (4) the RC elements.

The unit's portion of the support system had some good and effective ideas and solutions. The FAO, the *Family Support Handbook*, and the battalion newsletter were important contributions to the family support system. The unit could have done better if it had asked for help from many of the Army-wide organizations that were interested in its fate. However, the unit chose to limit itself to the help it could get from agencies at Fort Bragg or its own personnel. The consequences were that

22 Since it was possible that rank might be a confounding variable for the correlations summarized in Table 14-16, we ran partial correlations for the same relationships, controlling for rank. Considering the potentially powerful effects of rank as a control variable, relatively few changes occurred. The percentage of significant relationships for individual soldier morale variables increased to 25% while the percentages for Army-family fit and the internal family situation declined a bit, to 22% and 13%, respectively.

it produced solutions that were good for a standard AC unit, but did not fully address the RC and other dispersed families' needs.

The unit was given a toll-free telephone line to maintain contact with families. The telephone helped them to coordinate with the RC and to solve family problems. However, the unit did not use the telephone proactively to prevent problems as was done during Caminos Fuertes (Bell et al., 1996). The telephone line was established relatively late in the deployment, further limiting its usefulness.

These comments should not be taken as an indication that the FAO was not effective. He was. By middeployment, the RD was one of the most used services with some of the highest "helpfulness" ratings by both soldiers and their spouses. Furthermore, the NGSFPCs stated that the FAO was doing a good job.

The RD support elements worked hard, particularly those in Virginia and Maryland. They organized events, telephoned spouses, and kept in touch with the FAO. Nonetheless, they did not fully overcome the effects of "distance from the source of assistance," as has been seen in other deployments. This is an area that needs more research and testing to develop new models of how distant families can and should be assisted. Part of that research should examine how to better coordinate the potential helping team so that all the families feel that they are important to the Army.

Another area that could and should be addressed is how to make communications between the deployed soldiers and their families more accessible and less expensive. The unit leadership tried teleconferences, which worked for some of the families. The soldiers and their families, however, seemed to be more concerned about how to make individual calls cheap, reliable, and, if possible, free.

Finally, what family support can and cannot do needs to be addressed. Good support can help soldier morale and family adaptation to deployments and the Army, in general. It cannot "fix" marriages or change the fact that deployments are hard on couples and their children. However, our research here and elsewhere strongly suggests that family support not only helps the families, but that it helps the Army as well.

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15

CHANGES IN MARITAL QUALITY AMONG MFO COUPLES

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INTRODUCTION

As former Army Chief of Staff, General Edward C. Myer was fond of saying: "We recruit soldiers; we retain families." The Army has long known that family separation—the natural consequences of deploying soldiers to overseas locations—is one of the most stressful things that the Army can do to married soldiers.[1] Therefore, the Army should be quite interested in whether deployments of a largely volunteer and reserve force to the Sinai would have the same negative effects noted by others in the deployment of Active Component (AC) units to distant locations.

Spouses were asked after the first Multinational Force and Observers (MFO) Rotation how the deployment had affected their marriages. Forty percent indicated that the separation had a positive effect, 29% replied that it had had no effect, and 31% said it had had a negative effect (Van Vranken, Jellen, Knudson, Marlowe, and Segal, 1984). Marital satisfaction questions were asked of spouses of soldiers who deployed to Operations Desert Shield and Desert Storm (ODS/S) (Peterson, 1992), Operation Restore Hope in Somalia (Bell, Teitelbaum, & Schumm 1996),

1 A RAND study (Vernez and Zellman, 1987) lists family separation as being either the first or second most important reason married soldiers give for leaving the Army.

and Operation Joint Endeavor (Bell, 1996). Analysis of these data sets indicated that spouses whose soldiers were still deployed had less marital satisfaction now than they did prior to the start of the deployment. Marital satisfaction also was quite different for spouses who were living in a different location than the soldier, particularly those who were married to soldiers who were on unaccompanied tours. Research on marital stability during ODS/S was done by Teitelbaum (1991) and Durand (1992). Although these two researchers used different approaches, they reached the same conclusion: being deployed to ODS/S did not increase the probability of divorce among returning soldiers. However, family separation has long been known to be the primary reason that married soldiers give for not remaining in the Army (Vernez and Zellman, 1987). It is unclear whether going on a single deployment (particularly one in which the soldier volunteered to participate) would have the same effect.

METHOD

The data for this chapter come from two sources (married soldiers and spouses) and, for the soldiers, from two different times: shortly after they arrived at Fort Bragg (i.e., August 1994 for officers and noncommissioned officers (NCOs) and October 1994 for junior enlisted personnel) and halfway through the Sinai deployment (i.e., May 1995). The spouse questionnaire was administered to all spouses of soldiers in the unit during April 1995. The number of soldiers and spouses completing these questionnaires were 171, 139, and 69, respectively.[2]

The names of the measures used in this chapter and a brief description of them appear in Table 15-1. The four basic measures shown in the table appeared in either one of the two soldier questionnaires or in the spouse questionnaire. The four scales vary in length from one to six items. The concepts measured include: marital stability,[3] marital quality, and marital satisfaction.

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2 For details on questionnaire administration see Chapter 2 and Chapter 14.

3 The marital stability measure is based on the work of Booth and Edwards (1983), Crane and Mead (1980), and Crane, Newfield, and Armstrong (1984).

Table 15-1

A Description of Items and Scales
Used to Measure Marital Quality and Stability

1. Marital Stability. This was a series of four (yes/no) questions that are summed to yield a single score. The questions ask about successive signs of marital trouble ending with actually filing for a separation or divorce. This question was asked when the soldier first arrived at Fort Bragg (Time 1) and midway during the Sinai deployment (Time 2).

2. Marital Quality. The respondents were asked to separately rate on a 5-point scale (Very poor to very good) the following five aspects of their marriages: trust, spiritual values, communication, mutual support faithfulness, and capability to handle conflict. This question was asked when the soldier first arrived at Fort Bragg (Time 1) and midway during the Sinai deployment (Time 2). Spouses were also asked this same question at the midpoint of the deployment.

3. Marital satisfaction. The respondents were asked to rate the extent to which they have happy marriages at a given time. Soldiers were asked: before they joined the MFO (retrospective question, Time 0), when they first arrived at Fort Bragg (Time 1), and midway through the Sinai deployment (Time 2).

Table 15-2 shows the basic psychometric properties of the scales each time they were used. The most important of these properties is the Cronbach (1951) alphas (.81 to .94), which show that the scales have high internal consistency reliability.

While we have not developed estimates of the validity of the marital scales and items, those measures were, for the most part, significantly correlated with each other (Table 15-3). All of the soldier measures were correlated with one another. However, soldier measures were significantly related to less than half of the spouse measures. The couples seemed to agree on marital quality. Likewise, spouse estimates

of marital quality were correlated with one of three soldier estimates of marital satisfaction: the one that was measured at middeployment. Finally, spouse perceptions of marital quality did not correlate with either of the two soldier estimates of marital stability. As a whole, these

Table 15-2

Characteristics of Measures of Marital Quality

Measure	Items	Mean	Standard Deviation	Number of Cases	Alpha
Stability (soldier-T1)	28a-d	7.42	1.12	132	0.81
Quality (soldier-T1)	26a-f	24.78	4.70	130	0.89
Satisfaction (soldier-T0)	29	5.86	1.43	138	----
Satisfaction (soldier-T0)	30	5.55	1.46	137	----
Stabilty (soldier-T2)	33a-d	7.61	1.03	111	0.89
Quality (soldier-T2)	34a-f	24.86	5.98	130	0.94
Satisfaction (soldier-T2)	33	5.42	2.00	130	----
Quality (spouse-T2)	18a-f	24.47	5.69	66	0.93

Note. T0 = retrospective question on predeployment questionnaire referring to before joining MFO; T1 = predeployment (8-10/94); T2 = middeployment (5/95).

correlations were most likely to be statistically significant when: they were from the same source (e.g., soldiers), on the same topic (e.g., marital quality), and taken at the same point in time (e.g., middeployment).

The **first research question** had to do with the stability and quality of various aspects of the marriage as seen by the soldiers and their spouses. This question was answered using four tests:

1. Did levels of soldier marital satisfaction remain stable over three periods of time: before joining the unit, at predeployment, and at middeployment?

2. Did soldier estimates of marital quality remain stable over two periods of time: at predeployment and at middeployment?

3. Did soldier estimates of marital stability remain stable over two periods of time: at predeployment and at middeployment?

4. Did soldier and spouse estimates of marital quality differ from one another during two periods: at predeployment and at middeployment?

These questions were addressed using paired sample *t* tests and analysis of variance with repeated measures.

The **second research question** was whether we could build a typology for mapping changes in soldier reports of marital satisfaction over time and, if so, would it be useful? The initial topology divided the sample into three groups: (1) those whose satisfaction declined (a loss of two or more points), (2) those whose satisfaction remained the same (a loss or gain of one point or less), and (3) those whose marital satisfaction improved (a gain of two or more points).[4]

The **third research question** was whether changes in marital satisfaction could predict, or could be predicted by, other variables of interest and thus potentially help the Army and families successfully deal

4 Most of those in the "no change" group had high satisfaction scores on both surveys. To make that group more homogeneous, we eliminated four soldiers with very unhappy marriages (i.e., they had a score of three or less on both surveys). Thus all soldiers in subsequent analyses had at least moderately satisfying marriages at one or more of the times they were surveyed. Thus the "decrease" group consisted of soldiers who were moving from happy to only moderately happy marriages, the "same" group was "happy" at both occasions, and the "increase" group was moving from moderately happy to fairly high happiness during the deployment.

Table 15-3

Intercorrelations Among Marital Quality Measures

Measures	Soldier (stab-T1)	Soldier (sat-T0)	Soldier (sat-T1)	Soldier (sat-T2)	Soldier (qual-T2)	Soldier (stab-T2)	Spouse (qual-T2)
Soldier (qual-T1)	.66**	.80**	.53**	.40**	.30**	.41**	.29*
Soldier (stab-T1)	----	.66**	.39**	.26*	.25*	.30*	.15
Soldier (sat-T0)		-----	.66**	.36**	.35**	.41**	.13
Soldier (sat-T1)			-----	.28*	.30*	.33*	.06
Soldier (sat-T2)				-----	.72**	.63**	.35*
Soldier (qual-T2)					-----	.63**	.38*
Soldier (stab-T2)						-----	.13
Spouse (qual-T2)							----

Note: * $p < .01$; ** $p < .001$

Key: T0 = retrospective question on predeployment questionnaire refering to before joining MFO; T1 = predeployment (8-10/94); T2 = middeployment (5/95).

with deployment stress on families. Table 15-4 shows 20 variables which were examined as possible predictors of, or outcomes from, changes in marital satisfaction. Specifically, the table shows the name of the variable and the questionnaire it was used in.

Table 15-4

Variables That Should Predict or Be Predicted by Marital Satisfaction

Predictor variables	**Source***		
	A	B	C
Soldier paygrade	X		
Service component: Active or Reserve	X		
Spouse location	X	X	X
Distance from spouse's home to nearest military installation	X	X	X
Spouse completion of survey			X
Spouse's employment status			X
Soldier's satisfaction with Army life	X	X	
Number of times the soldier has been married	X		
Spouse's initial supportiveness of MFO mission	X		X
Spouse's current supportiveness of MFO mission	X	X	X
Expected impact of the deployment on marriage	X		
Soldier's predeployment marital stability	X		
Soldier's predeployment family adaptability	X		
Number of children			X
Spouse's level of education			X
Duration of current marriage in years			X
Spouse's age			X
Soldier's age		X	
Army - family fit		X	
Financial impact of the deployment		X	X
Outcome variables	**Source**		
	A	B	C
Soldier's retention intentions		X	
Soldier satisfaction with Army life		X	
Soldier morale		X	
Impact of soldier's marriage on his ability to perform his MFO job		X	

*Source: A: Soldier survey administered August & October 1994.
B: Soldier survey administered May 1995.
C: Spouse survey administered April 1995.

For nominal level variables we used chi-square tests to assess the significance of the association; for ordinal or interval-level variables, we used one-way analyses of variance. Because question three involved a

large number of analyses, we set the required level of significance for these analyses at the .01 level.

FINDINGS

Changes Over Time and Couple Agreement

The Hotelling's T^2 test yielded a value of 7.90, $F(2, 96) = 3.91 (p < .03)$, indicating that there was a significant change over time in soldier reports of **marital satisfaction**. A follow-up analysis indicated that the only difference was a decline between marital satisfaction prior to joining the MFO and when the soldiers first reported to Fort Bragg. Marital satisfaction during the deployment (mean = 5.30) was lower then either prior to the MFO (mean = 5.70) or after joining the unit at Fort Bragg (mean = 5.38). However, the latter two scores were not significantly different.

There was a difference in soldier reports of **marital stability** but not in **marital quality** between the time when the soldiers joined the unit and at middeployment in the Sinai. The marital stability rating declined from an average of 7.59 to 7.26 during the deployment.

Spouse and soldier reports of **marital quality** correlated ($r = .38$) with each other at middeployment. However, there was a significant difference in the mean scores: spouses reported higher levels of quality than did soldiers.

The Typology of Change in Marital Satisfaction

Of the 98 soldiers who provided reports of **marital satisfaction** during and before deployment, 31 reported exactly the same level of happiness at both times, while another 27 differed only by one point between the two times. As reported earlier, three of these individuals with the "same" scores were eliminated because their scores were less than "four," indicating that they had very unhappy marriages. Among the rest, 19 soldiers' scores declined and 21 soldiers had scores that improved. Among those who improved, one soldier was eliminated from further analyses because, despite the improvements, both scores were still below four on the 7-point satisfaction scale.

Correlates of Change in Marital Satisfaction

Few of our predictors or outcomes were related to changes in marital satisfaction. Only 2 of the 19 predictors in Table 15-4 were significantly related to changes in marital satisfaction. The exceptions were middeployment soldier reports of Army-family fit[5] and current levels of spouse support for the soldier's involvement in the MFO mission. In both cases, Scheffe's post hoc tests showed that Army-family fit and spouse support was lowest among soldiers who reported that their marital satisfaction had declined, followed by those who reported that it had remained the same, followed by those who reported that it had improved.

Predictor variables that were not related to changes in marital satisfaction included, for example, such variables as: soldier rank, component, spouse location, distance of spouse to the nearest military installation, whether the spouse completed a spouse survey, spouse employment status, and many other marital, support, and attitudinal variables.

In contrast, the changes in marital satisfaction were significantly related to two of the four outcome variables in Table 15-4. They were **soldier morale** and soldier estimates of the impact of their marriages on their **ability to perform their MFO jobs**. The post hoc testing was again used to show which groups were responsible for the observed differences in the measures overall. As expected, soldiers with declining marital satisfaction had the lowest morale. However, there was no real difference among the other two satisfaction groups. Soldiers whose marital satisfaction scores had declined were much more likely, than those whose scores had remained stable, to say that their marriages were interfering with their abilities to do their MFO jobs. There was no significant difference between those with steady and increasing levels of marital satisfaction.

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5 Army-family fit is a 4-item scale with a mean of 8.67, a standard deviation of 3.93, and a Cronbach alpha of 0.85. The five point (agree/disagree) items include the following statements: (1) My spouse is someone I can really talk with about things that are important to me, (2) My spouse and I consider ourselves to be a team working for Army goals, (3) My spouse understands the demands of my Army job, and (4) My spouse does a great deal to further my military career. This scale was first used in the 1989 worldwide Army Family Research Program survey (Segal and Harris, 1993). It has subsequently helped define the concept of "external adaptation" (i.e., how the family is adapting or adjusting to the Army) as opposed to how well it is able to meet its own, internal needs ("internal adaptation").

DISCUSSION

Changes in Marital Satisfaction, Quality, and Stability

Given what has been seen in other deployments, we expected to see a decline in all three of these measures: marital satisfaction, quality, and stability. That would have matched the lowered morale seen for the unit as a whole (See Siebold, Chapter 10) and the decline in spouse support for this mission reported earlier (Bell, Segal, & Rice, 1995). What we saw instead was a small drop in marital stability, a small (but not statistically significant) drop in marital satisfaction, and an actual increase in marital quality.[6] Finding decreases in marital stability in the face of increasing (albeit not statistically significant) levels of marital quality was also unexpected. Normally, social exchange theory would predict that changes in stability would follow changes in satisfaction (e.g., people do not start looking for new partners until they first have become dissatisfied with their current spouses). However, the absence of a decrease in stability may indicate that the soldiers were expecting their marital satisfaction to return to "normal" once they returned to the States or at least that they were going to wait until then to take any action to end their marriage. Further research with large samples will be required to explore this unanticipated finding.

Marital quality did not decline over time for all married soldiers. Although marital quality for *all* soldiers was higher than for *all* spouses, the husbands of the spouses who completed the spouse questionnaire reported lower marital quality than did their spouses at middeployment. That result reverses the more typical situation in which husbands report greater marital quality or satisfaction than wives (Fowers, 1991; Schumm & Silliman, 1996). If marital quality has declined for soldiers, it would have been convenient to argue that its decline was great enough to push it below marital quality for the wife, perhaps due to the unique hardships of deployment. However, if that were true, it would have been true for all married soldiers, not just the subset of soldiers whose spouses completed the spouse questionnaire. Obviously, more analyses are needed to determine why this anomaly occurred.

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6 The effect size in the decline in marital satisfaction (0.04) is large enough that it might have been statistically significant in a larger sample. The effect size for marital stability (0.26) is small to moderate in size.

Predicting Changes in Marital Satisfaction

Although these variables are called predictors, the two that actually correlate with changes in marital satisfaction are happening concurrently. That is, soldiers at middeployment who say that their marital satisfaction is dropping are also highly likely to report that their spouses are not supporting the MFO nor are they, as a couple, working as an Army team (Army-family fit). It is not hard to understand that all three things would be happening simultaneously. However, it is virtually impossible to determine whether the marital satisfaction is a cause or consequence of the relatively poor support of Army goals. The fact that a host of factors do not predict changes in marital satisfaction is interesting, but it does not answer what is really going on. Obviously more research is needed.

Predicting Outcomes of Changes in Marital Satisfaction

The finding that soldier morale and perceived effects of marriage affect one's ability to do one's job suggests that marital satisfaction has a meaningful relationship with two aspects of Army life that commanders find to be important: soldier morale and job performance. The size of these relationships suggests that these relationships are indeed real and powerful.[7] It is also interesting to note that drops in marital satisfaction are not associated with satisfaction with Army life or retention intentions. In other words, it is as if these soldiers are blaming their poor morale and job performance on their marriages rather than on the Army. One way for the soldier to avoid these problems may be to get out of the Army or at least not volunteer for deployments (and hence, long family separations). However, the Army may be better served by helping deployed soldiers (as well as their nondeployed spouses) deal with family separation.

Taken together it would seem that drops in marital satisfaction during deployments are related to lowered spouse support for this mission, reduced willingness for the couple to be an Army team, lowered

7 The effect sizes between changes in marital satisfaction and morale and perceived MFO performance are 0.78 and 0.77, respectively.

soldier morale, and greater interference of the marriage with actual soldier job performance.

One interpretation of this pattern of findings is to call it "home sickness." The deployment was in its fourth month, and the family had been supportive but was now much more realistic about how much this deployment was costing them in terms of the missed opportunity to function as an intact family. Spouse complaints about what it was like to be at home alone may have been affecting soldier morale as well as interfering with the job. Notice that it was the *soldiers*, rather than the *spouses* who were claiming that the spouses were not supportive. It was the soldiers, rather than the spouses, who were experiencing lowered morale and feeling that the family was interfering with their work. Therefore, if we are to "fix" marital satisfaction, morale, and job performance, the soldier must be included as a part of the solution.

"We recruit soldiers but retain families" in this case means the whole family. It is not soldiers and their families, it is a single entity: the soldier's family. Future work on family support should make a conscious effort to include advice and support to deployed soldiers as a way of increasing soldier performance and morale.

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SECTION 6

IMPACT ON HOME UNIT

The loss of volunteers to peacekeeping missions is likely to have some impact on contributing Reserve Component (RC) home units. Knowledge of the extent of this impact, be it positive or negative, will enable the Army to anticipate the consequences of deploying RC volunteers on future peace missions. Thus, unlike previous chapters that cover research on the deployed 28th Rotation, Chapter 16 (Smith and Hagman) identifies the personnel, training, and readiness impact of the Sinai peacekeeping mission on the Army National Guard's 29th Infantry Division (Light), the unit responsible for providing the majority of the 28th Rotation's RC volunteers. Reported findings are based on responses obtained via survey and interview from those RC soldiers who remained behind at home station during the course of the peacekeeping mission. Resulting recommendations should apply to future deployment scenarios in which a single RC division is called upon to be the primary source of peacekeeping volunteers.

16

IMPACT OF MFO MISSION ON ARMY NATIONAL GUARD HOME UNIT

Monte D. Smith
Joseph D. Hagman

INTRODUCTION

Unlike previous chapters that cover research on the deploying battalion, this chapter assesses the peacekeeping mission's impact stateside on the Army National Guard's (ARNG's) 29th Infantry Division (Light) (29th ID[L]). This division held administrative responsibility for the Reserve Component (RC) portion of the mission and contributed most of the composite battalion's RC volunteers.

Although RC soldiers have been involved in virtually every contingency operation since the Gulf War (Hultman, 1996), little is known about the impact of a peacekeeping mission on a sponsoring ARNG division. This is because the 28th Rotation was the first of its kind to rely on one ARNG division for the majority of its peacekeeping volunteers. In addition, the thrust of past research has been on the deploying battalion, as opposed to the nondeploying units, of AC-sponsored rotations (e.g., Brinkerhoff, 1995; U.S. General Accounting Office, 1995; Segal, 1994; Segal & Segal, 1993). Thus, little attention has been paid to determining peacekeeping mission impact on the units that remain stateside.

To this end, this chapter documents the results of U.S. Army Research Institute for the Behavioral and Social Science's (ARI's) research effort to assess the impact of the peacekeeping mission on the sponsoring ARNG division, as determined from the perspective of those soldiers who remained behind at home station. In doing so, it provides

information for determining whether or not extension of the composite-battalion concept to future peacekeeping missions is a good idea. If so, this information can then be used to facilitate the planning and execution of future peacekeeping missions involving extensive RC participation.

METHOD

Of the 294 volunteers from the 29th ID(L) who participated in the peacekeeping mission, 265 (90%) came from the division's nine infantry battalions. Table 16-1 shows the number and percentage of soldiers lost to the peacekeeping mission from each. Under the assumption that peacekeeping mission impact would be most likely to occur in units that suffered the majority of personnel loss, data collection was restricted to these nine battalions.

Design and Procedure

A longitudinal, questionnaire/interview-based data collection design was used to assess peacekeeping mission impact. Questionnaires were mailed to senior leaders (twice) and to junior leaders/soldiers (once) from the selected infantry battalions. Additionally, senior leaders who completed both of their questionnaires were subsequently interviewed by telephone.

Participants

Senior leader sample. On the basis of their duty assignments, 112 senior leaders from the selected infantry battalions were identified as qualified to observe and evaluate any impact that might have resulted from the loss of soldiers to the peacekeeping mission. This sample consisted of the company commanders and first sergeants (1SGs) from all 36 companies of these battalions (n = 72); as well as the battalion commanders, staff training officers, and sergeants major (n = 27); the brigade commanders, staff training officers, and sergeants major (n = 9); and the division's chief of staff, staff officers for personnel and training, and sergeant major (n = 4).

Table 16-1

Number and Percentage of Soldiers Lost to the Peacekeeping Mission From the 29th Division's Nine Infantry Battalions

Contributing Battalion	Number of Soldiers	Percentage of Soldiers
1/116th	38	11.44%
2/116th	27	6.51%
3/116th	53	12.01%
1/170th	26	6.56%
1/183rd	16	4.02%
1/115th	32	6.16%
2/115th	32	8.29%
1/175th	18	6.77%
2/175th	23	5.40%
Total	265	7.40%

Junior leader/soldier sample. Potential recipients of the junior leader/soldier questionnaire consisted of all soldiers from the nine selected infantry battalions, excluding those soldiers participating in the peacekeeping mission and those already included in the senior leader sample. Because of the large numbers involved, this sample was restricted to all infantry platoon leaders (n = 168) and platoon sergeants (n = 107) as well as to 400 squad leaders and 200 squad members from the selected battalions, with participants holding the latter two duty positions selected randomly from the 992 and 1,982 soldiers available, respectively. Thus, the total junior leader/soldier sample size was limited to an n of 875.

Questionnaires

Administration. Questionnaires were administered to senior leaders about 60 and 170 days, and to junior leaders/soldiers about 120 days, after peacekeeping troops had deployed to the Sinai on their mission. Questionnaires were sent by regular mail and were designed to require less than 1 hour to complete. To encourage participation, telephone calls (to senior leaders only) were made in cases of nonresponse. Ultimately, however, participation was on a voluntary basis.

Content. The questionnaires were designed to identify potential impact on the areas of training, personnel, and readiness (positive or negative) perceived as attributable to the loss of unit volunteers to the peacekeeping mission. Questioned areas of training impact included: the presence and extent of training impact, unit adaptability, impact on training plans and performance standards, and impact on work hours. Questioned areas of personnel impact included: morale, attitudes toward future peacekeeping participation, and anticipated reassignment problems. Questioned areas of readiness impact included: presence and extent of readiness impact, leadership capabilities, performance of mission essential tasks (METs), and weapons qualification. Whenever responses indicated that an impact was perceived, respondents were asked additional questions to document its extent and to determine what adjustments were made. For the most part, identical questions were asked of both senior leaders and junior leaders/soldiers.

Interviews

Conduct. About 90 days after peacekeeping troops had returned to home station, telephone interviews were conducted (by the same researcher) with 65 of the 71 (91.5%) senior leaders who had completed both previous questionnaires. The timing of the interviews was selected so as to provide an optimal opportunity to assess impact perceptions related to the peacekeeping mission after it was completed but before memory of its impact faded.

Content. The focus of the interviews was on the training status of peacekeeping troops who had returned from the Sinai and their impact on subsequent unit morale and readiness.

RESULTS

Questionnaire Return Rates

Senior leader return rates. Of the 112 questionnaires sent to senior leaders on the first mailing, 102 were completed for a return rate of 84%. Of those who responded to the first questionnaire, 78 remained in the same (or similar) duty position within their units during the approximate 4-month interval between questionnaire administrations, and therefore

served as the sample for the second questionnaire. Of those mailed, 71 were completed for a return rate of 91%. Because of the longitudinal nature of data collection, the 71 senior leaders who returned both questionnaires served as the sample from which responses were analyzed. For analysis purposes, all battalion-level leaders (or above) were combined into one category (hereafter referred to as simply battalion leaders) to facilitate comparisons with company commanders and 1SGs. Overall, returns for senior leaders were relatively uniform across battalions, as shown in Table 16-2.

Table 16-2

Number of Returns by Duty Position for Each Battalion

	Duty Position			
Battalion	1SGs	Company Commanders	Battalion Leaders	Totals
11/116th	4	2	2	8
2/116th	3	4	3	10
3/116th	2	3	5	10
1/170th	2	2	2	6
1/183rd	3	2	3	8
1/115th	3	2	1	6
2/115th	3	2	1	6
1/175th	4	2	2	8
2/175th	1	3	3	7
Total	24	23	24	71

Junior leader/soldier return rates. Of the 817 questionnaires sent to junior leaders/soldiers (adjusted downward from the 875 indicated earlier because of undeliverables), 196 were completed for a return rate of 24% (see Table 16-3). Although this return rate was considerably lower than that observed for senior leaders, the responses obtained from both samples were highly similar.

Table 16-3

Composition of the Junior Leader/Soldier Sample

Duty Position	# Mailed	Undeliv-erables	Adjusted Base	Returns	Return Rate
Platoon Leaders	168	13	155	55	35.5%
Platoon Sergeants	107	3	104	47	45.2%
Squad Leaders	400	22	378	77	20.4%
Squad Members	200	20	180	17	9.4%
Total	875	58	817	196	24.0%

Interview Completion Rate

Sixty-five of the 71 senior leaders (91.5%) who had completed both of their questionnaires also completed the postpeacekeeping mission interview.

Table 16-4

Training Impact of the Peacekeeping Mission

Response	Senior Leaders at Time 1 (%)	Senior Leaders at Time 2 (%)	Junior/ Leaders Soldiers (%)
Had an Impact	52.1	47.8	48.5
Positive	18.3	23.9	33.2
Negative	33.8	23.9	15.3
No Impact	45.1	52.1	50.0
Do Not Know	2.8	0.0	1.5

Training Impact

About one half of the infantry battalion's senior leaders and junior leaders/soldiers reported that the peacekeeping mission impacted training (see Table 16-4). Senior leaders initially rated the impact as negative, by almost a 2-to-1 margin. By the second measurement, however, senior leaders had shifted substantially in their evaluations, with the same proportion (23.9%) reporting positive and negative impacts. Junior leaders/soldiers, on the other hand, reported a positive impact by about a 2-to-1 margin.

Table 16-5 shows how senior leaders shifted toward a less negative view of training impact. The first column shows the number of senior leaders who initially reported positive training impact, no impact, or negative training impact. The next three columns show how senior leaders within each rating category subsequently evaluated the training impact of the peacekeeping mission. As can be seen in the first data row, of the 13 senior leaders who reported a positive impact at Time 1, 6 also reported a positive impact at Time 2, 6 shifted by one position to a rating of no impact, and 1, who was initially positive, shifted two rating positions to give a negative rating at Time 2.

Table 16-5

Time 1 and Time 2 Senior Leaders' Training Impact Ratings

	Time 2		
Time 1	Positive (n = 16)	No Impact (n = 36)	Negative (n = 17)
Positive (n = 13)	6	6	1
No Impact (n = 32)	5	23	4
Negative (n = 24)	5	7	12

The second data row of Table 16-5 shows that senior leaders who reported no training impact at Time 1 also tended to report no impact at

Time 2. Of those who shifted, there was about an equal tendency to shift to either positive or negative ratings.

It was among senior leaders who were initially negative, however, that the greatest degree of shifting occurred. Twenty-nine percent of the senior leaders with an initially negative impact rating subsequently shifted their ratings to no impqdt, and another 21% shifted from their initial negative evaluation all the way to a positive rating. Although shifting in training impact ratings occurred in all three categories, more occurred from negative-to-positive than from positive-to-negative.

Amount of training impact. Senior leaders and junior leaders/ soldiers who reported that the peacekeeping mission impacted their units training activities (in either a positive or negative direction) were asked to rate the magnitude of this impact using a 5-point scale where a rating of 1 indicated "minor impact" and a rating of 5 indicated "major impact." Table 16-6 presents the mean ratings for magnitude of training impact. Means for positive impact are in the first data row, and means for negative impact are in the second row. The last two data rows present the results of analysis of variance (ANOVA) tests of significance between positive and negative means. For junior leaders/soldiers, and for senior leaders at Time 1, positive impact did not differ significantly from negative impact. At Time 2, however, senior leader positive impact was significantly greater than senior leader negative impact.

Table 16-6 also illustrates how senior leaders shifted toward more positive views over time. Although mean ratings of amount of change at Time 1 were equivalent for negative and positive impact groups, almost twice as many senior leaders reported negative impacts as positive impacts, so the absolute (or net) impact at Time 1 was negative. At Time 2, however, the number reporting positive impact equaled the number reporting negative impact. Moreover, the amount of positive impact at Time 2 was significantly greater than the amount of negative impact. Across time, senior leaders changed from a negative stance, to a decidedly positive one. Junior leaders/soldiers were pro peacekeeping mission at the one time that they were questioned.

The postpeacekeeping mission interview revealed that any negative training impact perceived by senior leaders during the peacekeeping mission was offset by the return of peacekeeping volunteers who were

judged to be better trained upon their return than upon their departure for peacekeeping duty. When asked during the interview if returning soldiers were better trained, about the same, or not trained as well as before they left, 72.7% of the 65 senior leader respondents replied that their returning soldiers were better trained now than before. In addition, no senior leader thought that the training status of returning peacekeeping volunteers had deteriorated during the mission.

Table 16-6

Mean Magnitude of Positive and Negative Training Impact

Direction of Change	Senior Leaders at Time 1 (%)	Senior Leaders at Time 2 (%)	Junior Leaders/ Soldiers (%)
Positive Impact	2.08 (n = 13)	2.71 (n = 17)	2.78 (n = 65)
Negative Impact	2.27 (n = 22)	2.00 (n = 17)	2.43 (n = 30)
F(df)	< 1(1, 33)	4.59 (1, 33)	1.86 (1, 93)
p	ns	< .05	ns

Relation between troop loss and judgments of training impact. Percentage of unit strength lost to the peacekeeping mission varied substantially across units. Five senior leaders reported losing only 1% of troop strength. Three senior leaders, however, lost 12% of their troops, and almost one fifth of the senior leaders reported losing 10% or more of their troops to the peacekeeping mission. Not surprisingly, percentage of unit strength lost to the peacekeeping mission was related, especially early in the mission, to senior leaders' propensity to rate the mission's training impact as positive or negative (see Table 16-7).

An ANOVA of senior leader troop loss data at Time 1 indicated a significant difference, $F(2, 60) = 3.65$, $p < .05$, among the displayed means. (Eta squared = .1084.) Because the comparison of primary interest was between positive and negative training impact groups, a second ANOVA was conducted using only these two groups. This test indicated that the reported percentage of unit strength lost to the mission

Table 16-7

The Relation Between Mean Percentage of Troop Loss and Training Impact Ratings

	Percentage of Unit Strength Lost to the Peacekeeping Mission			
	Time 1		Time 2	
Training Impact Rating	Mean	SD	Mean	SD
Positive Change	5.3	3.3	6.5	3.2
No Change	5.7	2.5	5.5	2.9
Negative Change	7.7	3.2	8.2	2.5

was significantly greater among senior leaders reporting a negative training impact than among those reporting a positive training impact, $F(1, 31) = 4.25$, $p < .05$. (Eta squared = .1205.)

An ANOVA of troop loss data based on training impact ratings given by senior leaders at Time 2 also produced a significant outcome, $F(2, 60) = 3.84$, $p < .05$. (Eta squared = .1134.) A follow-up comparison of negative and positive training impact groups, however, yielded a nonsignificant result at Time 2, $F(1, 25) = 2.05$, $p > .05$. Newman-Keuls pair-wise comparisons indicated that the only significant comparison was between negative and no impact groups ($p < .05$).

Impact on training plans and standards. Senior leaders were asked if the peacekeeping mission had required changes in Annual Training plans or in training standards, required more special training, or caused critical training to be delayed. Responses to these questions are summarized in Table 16-8. Few senior leaders reported changes or impacts at either Time 1 or Time 2, but uncertainty concerning the mission's eventual impact increased considerably across the two measurement occasions. Senior leaders who responded "no" to these questions at Time 1 tended to respond "don't know" at Time 2.

Similar questions were asked of junior leaders/soldiers. Responses were consistent with those obtained from senior leaders, indicating that although there had been some training impact, it had been minor. Only 3.6% of junior leaders/soldiers reported that the peacekeeping mission

Table 16-8

Auxiliary Training Issues (Senior Leaders)

	Time 1 (%)			Time 2 (%)		
Training Issue	Yes	No	Dk	Yes	No	Dk
Training Plans Changed?	4	88	7	9	51	41
Training Standards Changed?	3	59	38	0	32	68
More Need for Special Training?	13	51	37	4	26	69
Critical Training Delayed?	3	58	39	1	30	68

Note. Dk = Do Not Know.

had caused a delay in their own training. Somewhat more junior leaders/soldiers said they had received additional training (11.2%), or assumed additional duties (21.9%) as a result of the peacekeeping mission, and 9.7% of junior leaders/soldiers thought the peacekeeping mission might lead to promotion opportunities.

Increased work hours. When asked if their soldiers were required to work longer hours as a result of the peacekeeping mission, 15.5% of senior leaders said yes at Time 1 and 14.1% said yes at Time 2. Senior leaders were also asked if they personally worked longer hours as a result of the peacekeeping mission. Affirmative responses were given by 14.7% at Time 1 and by 15.5% at Time 2. The mean number of weekly extra work hours reported by senior leaders at Time 1 was 3.80. By Time 2 that mean had dropped to 3.09. Seventy percent of the senior leaders who reported longer hours at Time 1 also reported longer hours at Time 2, indicating that the effect tended to last throughout the duration of the mission. For senior leaders reporting longer work hours at both Times 1 and 2, the mean additional weekly hours were 3.57 and 2.86, respectively, at the two measurement occasions. This decrease was not statistically significant, $t(6) = 0.53$, $p > .05$.

One junior leader/soldier in 10 (10.2%) reported working longer hours as a result of the peacekeeping mission. The mean number of

additional weekly work hours (for the 10.2% of junior leaders/soldiers affected) was 4.15.

Unit adaptability. Regardless of whether senior leaders thought the training impact of the peacekeeping mission was positive or negative, they were confident of their units' ability to adapt to changing circumstances. When asked to rate the extent to which their units had been able to adjust to training impacts caused by the peacekeeping mission, senior leaders responded with mean ratings in excess of 4.0 on a 5-point scale, regardless of whether they had evaluated the training impact of the mission as positive or negative.

Personnel Impact

Morale. Approximately one third of the junior leaders/soldiers and senior leaders who were questioned said that the peacekeeping mission had impacted on morale in their units. Of those who reported an impact, the direction of the impact was predominantly in the positive direction (see Table 16-9).

Table 16-9

Reported Change in Morale

Direction of Change	Senior Leaders at Time 1 (%)	Senior Leaders at Time 2 (%)	Junior Leaders/ Soldiers (%)
Positive Change	33.8	28.2	33.9
Negative Change	2.8	4.2	4.2
No Change	63.4	67.6	62.0

Among senior leaders, perceptions of morale change varied substantially by duty position. The highest levels of perceived positive morale change were reported by company commanders (see Table 16-10). Reports of negative morale change were negligible, regardless of duty position. In addition, the postpeacekeeping mission interview revealed that almost 85% of the senior leaders thought that overall unit morale had improved because the peacekeeping volunteers themselves

returned with morale either improved or about the same as before they left for peacekeeping duty.

Table 16-10

Reported Positive Morale Change by Duty Position

Duty Position	Time 1 (%)	Time 2 (%)
1SGs	16.0	16.7
Company Commanders	52.0	39.1
Battalion Leaders	33.3	29.2
Total	33.8	28.2

In the junior leader/soldier survey, judgments of positive morale impact also varied by duty position (see Table 16-11). Platoon leaders were most likely to report a positive morale impact. Few reports of negative morale change occurred at any duty position among the junior leaders/soldiers. The mean amount of positive morale change (as measured on a 5-point scale where 1 = minor change and 5 = major change) was 2.5 at Time 1 and 2.85 at Time 2 for senior leaders, and 2.86 for junior leaders/soldiers at the one time they were questioned.

Table 16-11

Reported Positive Morale Changes Among Junior Leaders/Soldiers

% Reporting Positive Morale Change by Duty Position	
Platoon Leaders	53.7
Platoon Sergeants	31.9
Squad Leaders	27.6
Squad Members	0.0
Total	33.7

Future peacekeeping participation. When asked if the 29th ID(L) should participate in more assignments like the peacekeeping mission, the vast majority of respondents replied "yes." Senior leaders

unanimously endorsed this prospect at Time 1, and it was affirmed by 98.6% of senior leaders at Time 2. Endorsement by junior leaders/ soldiers was almost as widespread, at 92.7%.

Fewer than one senior leader in five (15.7%) had volunteered for the current peacekeeping mission. When asked if they would volunteer for a future peacekeeping mission, however, 38.0% of senior leaders said "yes" at Time 1 (see Table 16-12). This proportion had grown to 46.5% by Time 2. The increase from Time 1 to Time 2 in senior leaders' professed willingness to volunteer for future missions came principally from senior leaders at the battalion level (and above).

Table 16-12

Percentage of Senior Leaders Who Would Volunteer for a Future Peacekeeping Mission

Duty Position	Time 1 (%)	Time 2 (%)
1SGs	40.0	41.7
Company Commanders	40.0	43.5
Battalion Leaders	33.3	54.2
Total	38.0	46.5

Almost one quarter of the junior leaders/soldiers (24.5%) said they had volunteered for the current peacekeeping mission, and 36.7% said they would volunteer for a future mission. One junior leader/soldier in five (22.6%), however, said they did not receive sufficient information about the peacekeeping mission to make an informed decision about volunteering (See Chapter 3 for more on this issue).

Reassignment. Based on questionnaire responses, only one senior leader in five anticipated problems with integrating peacekeeping volunteers back into their units. This figure varied little from Time 1 (18.3%) to Time 2 (19.7%). Approximately 1 junior leader/soldier in 6 (15.9%) anticipated problems following the return of the peacekeeping volunteers. The most frequently anticipated concern was that peacekeeping volunteers—especially the better soldiers among

them—would seek other active duty assignments rather than return to their ARNG units, thereby weakening the performance capability of their units. The only other anticipated problem to receive more than scattered mention was that similar duty positions would not be available for returning peacekeeping soldiers because of anticipated unit restructuring.

Readiness Impact

Readiness questions focused on determining whether or not changes had occurred in readiness levels since volunteers had left their units to participate in the peacekeeping mission, and if so, whether or not these changes had been caused by the peacekeeping mission. Senior leaders were asked to assess changes in readiness in the following areas: officer leadership capability, soldier's ability to perform mission-essential tasks, weapons qualification capability, and overall combat readiness. A subset of these questions was asked of junior leaders/soldiers. In all areas, respondents were asked to compare present conditions with those that had existed 6 months before volunteer soldiers departed for the peacekeeping mission.

If a change in readiness level had occurred, respondents were next asked to indicate whether the change was positive or negative. Then, using 5-point rating scales, they indicated the magnitude of change (ranging from minor change = 1, to major change = 5) and the extent to which the peacekeeping mission had caused the change (ranging from not at all = 1 to totally = 5).

Impact of the peacekeeping mission on combat readiness was perceived to be negative, although this negative impact lessened with time for most senior leaders (see Table 16-13). The proportion of negative combat readiness ratings varied across time as a function of duty position. Both company commanders and battalion-level senior leaders became less negative across measurement occasions, while 1SGs became more negative. In the junior leader/soldier survey, positive impacts on combat readiness were reported by 10.2% of junior leaders/soldiers and negative impacts were reported by 23.5%.

Early in the mission the tendency to judge the impact of the peacekeeping mission as either positive, negative, or neutral was related to the percentage of unit troop loss to the peacekeeping mission. At Time

Table 16-13

Reported Change in Combat Readiness (Senior Leaders Only)

Duty Position	Positive		Negative		None/Dk (%)	
	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2
Company Commanders	12.0	13.0	40.0	21.7	48.0	65.2
1SGs	16.0	16.7	24.0	37.5	60.0	45.8
Battalion Leaders	0.0	8.3	47.6	25.0	52.4	66.7
Total	9.9	12.7	36.5	28.2	53.5	59.1

1, senior leaders who said that the mission produced a negative impact on combat readiness experienced the largest percentage of troop loss. Those saying the impact was positive had the smallest percentage troop loss, and those reporting no impact on combat readiness experienced an intermediate level of troop loss. This correspondence was statistically significant at Time 1, $F(2, 59) = 4.23$, $p < .05$. (Eta squared = .1253.) A Newman-Keuls test indicated that the negative change mean was greater than either the positive change mean or the no change mean ($p < .05$). The relation between percentage of troop loss and combat readiness ratings did not occur at Time 2, $F(2, 59) < 1$, $p > .05$). The data on proportional troop loss at both measurement occasions are shown in Table 16-14. Although the absolute difference between the highest and lowest means at Time 1 was not great, the largest mean troop loss (7.4%) was 72% greater than the smallest mean troop loss (4.3%). Thus, relative loss seems to have been the key.

The mediating influence of percentage of troop loss upon judgments of combat readiness may partially explain the anomalous divergence, noted above, between decreasing negative judgments of company commanders and battalion leaders versus increasing negative judgments of 1SGs. As shown in Table 16-13, 1SGs became more negative over time in their judgments of the peacekeeping mission's impact upon combat readiness, whereas company commanders and battalion leaders became less negative. Troop loss may interact with time, becoming more aversive at the most direct level of contact. Although company commanders and battalion leaders can make administrative adjustments,

1SGs may find it progressively more difficult to adjust to the undeniable reality of fewer bodies.

Table 16-14

The Relation Between Mean Percentage of Troop Loss and Combat Readiness Impact Ratings

	% of Unit Strength Lost to the Peacekeeping Mission			
	Time 1		Time 2	
Combat Readiness Impact Rating	Mean	SD	Mean	SD
Positive Change	4.3	2.6	6.8	2.8
No Change	5.6	2.9	6.0	3.2
Negative Change	7.4	2.9	6.8	2.6

Although more senior leaders and junior leaders/soldiers reported negative than positive changes in combat readiness, those who reported positive changes rated them as having greater impact. Table 16-15 summarizes mean ratings of the amount of observed changes, as measured on a 5-point scale, where 1 = minor change and 5 = major change. The difference between positive and negative mean ratings was significant among junior leaders/soldiers, but not among senior leaders.

Senior leaders who reported negative changes, however, were more inclined to attribute the changes to the peacekeeping mission, although this tendency diminished somewhat across measurement occasions. At Time 1, mean attribution ratings (on a 5-point scale) for negative and positive change were 3.5 and 2.1, $F(1, 31) = 5.58$, $p < .05$, respectively. At Time 2, negative and positive attribution ratings were 3.5 and 2.7, $F(1, 27) = 2.10$, $p > .05$, respectively. Among junior leaders/soldiers, the tendency for greater attribution of negative changes to the peacekeeping mission did not occur. Mean junior leader/soldier attribution ratings for positive and negative changes in combat readiness were 3.1 and 2.9. These means did not differ statistically ($p > .05$).

Table 16-15

Mean Ratings of the Extent of Change in Combat Readiness

Senior Leaders at Time 1		Senior Leaders at Time 2		Junior Leaders/ Soldiers at Time 1	
Positive ($n = 7$)	Negative ($n = 26$)	Positive ($n = 9$)	Negative ($n = 20$)	Positive ($n = 20$)	Negative ($n = 46$)
2.7	2.0	3.2	2.5	3.4	2.4
$F(1, 31) = 2.57$, ns		$F(1, 27) = 2.86$, ns		$F(1, 64) = 11.01$, $p < .01$	

The postpeacekeeping mission interview of senior leaders revealed that the return of peacekeeping volunteers to their home-station units had a positive impact on unit readiness. No senior leaders reported a negative impact while 35% of them reported a positive impact, with the reported mean amount of change being equal to 3.09 on a 5-point scale.

Leadership capability. Both senior leaders and junior leaders/soldiers were asked if there had been a change in the ability of officers and 1SGs to lead effectively (see Tables 16-16 and 16-17). More senior leaders reported positive than negative change in leadership capabilities, and positive change was reported increasingly across measurement occasions, especially at the battalion level (and above).

Table 16-16

Reported Change in Leadership Capability

Direction of Change	Senior Leaders at Time 1 (%)	Senior Leaders at Time 2 (%)	Junior Leaders/ Soldiers (%)
Positive Change	12.7	18.3	11.7
Negative Change	7.0	5.6	10.7
No Change or Do Not Know	80.3	76.0	77.6

The mean amounts of positive change (on a 5-point scale) were 3.6 at Time 1 and 3.3 at Time 2. The negative change mean ratings (on the same 5-point scale) were 2.4 at Time 1 and 2.5 at Time 2.

Table 16-17

Reported Positive Change in Leadership Capability by Duty Position

Duty Position	Time 1(%)	Time 2 (%)
1SGs	12.0	12.5
Company Commanders	24.0	17.4
Battalion Leaders	0.0	25.0
Total	12.7	18.3

Although the majority of the senior leaders reported no change in leadership capability, it is noteworthy that of those who did report a change, more thought the change had been positive than thought it had been negative. Those who reported a positive change also rated it as substantially higher in magnitude than those reporting a negative change. Mean attribution ratings (the extent to which observed changes could be attributed to the peacekeeping mission) were equal for those reporting positive and negative change: 3.2 on a 5-point scale.

About an equal proportion of junior leaders/soldiers reported positive (12%) and negative (11%) changes in the leadership capabilities of their officers and 1SGs. The mean amount of change reported by junior leaders/soldiers was equal for those reporting positive and negative impacts: 2.9 on a 5-point scale. Mean attribution ratings also were comparable: 2.8 for those reporting a positive change and 2.6 for those reporting a negative change.

Performance of mission essential tasks. Senior leaders were asked if there had been a change in the capabilities of soldiers in their units to perform METs. The ratio of senior leaders reporting positive versus negative impacts was about 2-to-1, at both Times 1 and 2 (see Table 16-18). Moreover, the amount of positive change was substantially greater than the amount of negative change (3.3 vs. 2.0 at Time 1, and 3.0

Table 16-18

Reported Change in Ability to Perform METs

Direction of Change	Senior Leaders at Time 1 (%)	Senior Leaders at Time 2 (%)
Positive Change	19.7	15.5
Negative Change	9.9	8.5
No Change or Do Not Know	70.4	76.0

vs. 2.3 at Time 2). The Time 1 means differed significantly, $F(1, 19) = 9.87$, $p < .01$.

Although senior leaders were twice as likely to say that observed impacts on ability to perform METs were positive in direction and also inclined to rate the amount of positive change as greater in magnitude than negative change, there was a tendency to attribute negative impacts to the peacekeeping mission to a greater degree. At Time 1, those who reported a negative impact on ability to perform METs were significantly more likely to attribute the change to the peacekeeping mission than were those who reported a positive impact. The mean negative attribution score was 4.4 on a 5-point scale, and the mean positive attribution score was 2.6. The difference between these means was significant, $F(1, 19) = 13.21$, $p < .01$. At Time 2, the difference was less extreme, with a mean negative attribution score of 3.3 and a mean positive attribution score of 2.5. The latter two means did not differ significantly ($p > .05$).

Weapons qualification. Neither senior leaders nor junior leaders/soldiers reported substantial change in weapons qualification capability. Ninety-two percent of the senior leaders at Time 1 and 87% of senior leaders at Time 2 reported no change on this readiness dimension. Among those reporting a change, the ratio of positive-to-negative reports was about 2-to-1. Ninety percent of the junior leaders/soldiers reported no change, and the remaining 10% were equally divided between reports of positive and negative change.

SUMMARY AND DISCUSSION

Impact on Training and Combat Readiness

Training impact. An important finding of this research is that senior leaders' perceptions of peacekeeping mission impact on training changed substantially over time. At first, many senior leaders were suspicious of the peacekeeping mission's impact on training, perhaps being concerned that such a mission would siphon away scarce personnel resources. As the peacekeeping mission progressed, however, evaluations of its training impact shifted from negative to positive. During this time, some respondents (i.e., 15% of the senior leaders and junior leaders/soldiers) compensated for reductions in unit strength by working extra hours. According to written comments, longer hours were necessary especially when the missing soldiers were full-time personnel (i.e., Active Guard and Reserve).

By the time the mission was over and the peacekeeping volunteers had returned to their units, 72.7% of senior leaders reported that the volunteers returned better trained than before they left. If this perception is correct, then one can conclude that long-term positive training benefits will occur within units of the 29th ID(L) as peacekeeping mission volunteers are fully integrated back into their units. Indeed, the results of postpeacekeeping mission interviews with senior leaders support this conclusion.

Readiness impact. A similar shift in perceived impact was found in the area of combat readiness. Throughout the duration of the peacekeeping mission, senior leaders reported that its impact on combat readiness was negative. A shift toward the positive, however, did occur over time. In fact, by the time senior leaders were interviewed after the peacekeeping mission was over and its soldiers were reassigned to their units, 35.4% of senior leaders reported a positive impact on combat readiness while none reported a negative impact. Although a change in measurement method did occur (i.e., from questionnaire to interview), and hence could have influenced the results somewhat, it appears safe to say that a substantial shift in senior leader perception did occur over time. Thus, the peacekeeping mission's short-term effect on combat readiness

was negative, whereas its long-term effect on combat readiness was positive.

Mediating Effects of Troop Loss

Another important finding of this research is that senior leader perceptions (especially those expressed early on when the prevalent sentiment was negative) of peacekeeping mission impact on both training and combat readiness appear to be related to the extent of unit troop loss. Senior leaders who reported negative impact experienced a relatively large percentage of troop loss, whereas those reporting positive impact experienced a relatively small percentage of troop loss. The relation between troop loss and judgments of impact on both training and combat readiness suggests that consideration should be given in future missions of this nature to selecting volunteers proportionally from all eligible units.

Impact on Morale

The final important finding of this research is that peacekeeping mission impact on morale was consistently positive. About one third of the senior leaders and junior leaders/soldiers reported positive morale impact within their units while the peacekeeping mission was in progress. In addition, most senior leaders reported that the peacekeeping volunteers themselves returned from the Sinai with enhanced morale. Reports of positive morale impact were confirmed by the substantial percentages of both senior leaders and junior leaders/soldiers who indicated willingness to volunteer for a peacekeeping mission in the future. Furthermore, virtually all senior leaders and over 90% of junior leaders/soldiers thought that participation in the peacekeeping mission by the 29th ID(L) was a good idea and endorsed future participation in similar missions. The following comments from an officer in one of the division's infantry units illustrates the overall positive evaluation which the peacekeeping mission enjoyed.

> I do not feel that the temporary loss of the peacekeeping mission soldiers had any impact on the type or quality of the unit's training during the past year. The positive impact on our combat readiness that I indicated in this survey, I feel, results from the psychological effect the peacekeeping mission has had on all of

our soldiers. This was the first time that these Guardsmen have been given this opportunity to serve. Even for those that did not volunteer to go to the Sinai, there is a sense of pride that members of this unit and this division were called upon to perform a real world mission. This makes them feel more a part of the total Army, and makes them realize that with the downsizing of the military, there is an increased chance that they could be called to active service in defense of our national interests. Overall, I feel that this is a good mission for the Guard, and should be "fine tuned" with lessons learned, and continued in the future.

RECOMMENDATIONS

- *Monitor the proportion of volunteers recruited from each unit to avoid disproportionate impact.*

Substantial negative impact of the peacekeeping mission was observed only in the area of combat readiness, and these perceived negative impacts were associated with high proportions of troop loss. Although negative combat readiness impacts tended to self-rectify somewhat across the duration of the mission, they may be avoidable entirely by implementing strict limitations on the percentage of troops taken from any unit.

- *Recruit from the largest practicable volunteer pool to spread the impact of troop loss and minimize its effect on individual units.*

Administratively, this is probably a difficult recommendation to implement because a broadened volunteer pool entails substantially incremented coordination efforts. It should be recognized, however, that volunteer assignments such as the peacekeeping mission have the potential of delivering considerable psychological benefits to participating units. Senior leaders in the 29th ID(L) convincingly stated that the mere opportunity to participate in the peacekeeping mission produced a huge psychological boost for the soldiers in their units. It inspired renewed pride in their units and pride in the ARNG as an entity

capable of making significant real-world contributions to world peace. It gave ARNG soldiers an enhanced feeling of being a mainstream participant in the defense of our national interests. That kind of *esprit de corps* is worth an extra administrative effort.

- *Capitalize on morale benefits associated with peacekeeping mission participation.*

Evidence from all points in time and from every source (junior leaders/soldiers as well as senior leaders) indicated that the peacekeeping mission resulted in positive morale changes. These morale improvements were reported not only for participating peacekeeping volunteers, but also for division soldiers who did not participate in the peacekeeping mission. It is to be hoped that these positive morale changes can be built upon and expanded through future ARNG volunteer missions. Support for future participation in similar missions was nearly unanimous among both senior leaders and junior leaders/soldiers of the 29th ID(L). Clearly, the peacekeeping mission struck a responsive chord among ARNG soldiers. ARNG participation in peacekeeping missions is apparently a good idea whose time has come.

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SECTION 7

CONCLUSIONS AND RECOMMENDATIONS

In this final section to *Reserve Component Soldiers as Peacekeepers*, Chapter 17 (Phelps) consolidates the major conclusions from the preceding chapters and makes recommendations for future use of Reserve Component volunteers in either other Multinational Force and Observers rotations or other missions. A critical caveat to all our findings is: they apply to some other missions and configurations of soldiers, but by no means to all. In this final chapter Phelps helps readers determine which findings are likely to generalize by comparing the Sinai mission to other recent peacekeeping missions.

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CONCLUSIONS AND RECOMMENDATIONS

Ruth H. Phelps

The results of our research described in this book leave little doubt that the concept of deploying a composite Active Component/Reserve Component (AC/RC) battalion for peacekeeping in the Sinai is a good idea. Enough qualified RC soldiers volunteered, they were successfully trained to Multinational Force and Observers (MFO) peacekeeping mission standards, and their families, despite being dispersed nationwide, were adequately supported by existing AC/RC family support systems. Unit cohesion turned out not to be a problem, although morale dropped considerably over the duration of the deployment, a finding related to misconceptions that occurred during predeployment recruiting and training. The RC home division, from which most of the mission volunteers were drawn, successfully compensated for the temporary loss of these volunteers and benefited from increased morale.

Problems that were encountered by the 28th Rotation, e.g., micromanagement in a harsh, isolated, and monotonous operational environment; dissatisfaction with leadership over rest and recreation restraints; and decreased morale, were similar to those identified by Segal & Segal (1993) in previous all-AC rotations. This tendency was exacerbated in Rotation 28 because it was executed under intense scrutiny by not only the Army leadership but also the Egyptian/Israeli governments and the media.

APPLICABILITY TO OTHER MISSIONS

The Chief of Staff's original question asked about the general feasibility of using volunteer RC soldiers to augment or replace AC soldiers for selected peace missions. The answer appears to be "Yes" to the notion of augmenting and "Maybe" to the notion of replacing. Technically speaking, the findings of our research with the 28th Rotation can be generalized only to future 80% RC/20% AC configured units with the same Sinai peacekeeping mission. However, many of our findings are, nonetheless, likely to apply to other AC/RC unit compositions as well as to all-RC unit compositions. Findings on recruiting and selection, and family support, for instance, are most likely not specific to the composite 28th Rotation and the Sinai peacekeeping mission. In addition, morale problems are likely to occur anytime soldiers feel that their expectations have not been met.

Some findings, however, may or may not apply to other missions. For example, soldier performance demonstrated under stable, low-threat conditions, such as those experienced in the Sinai, may be quite different under unpredictable, high-threat conditions, such as Bosnia. To help identify other peace missions to which the present findings might apply, the Sinai and four other missions are rated on seven dimensions as shown in Table 17-1. Missions most similar to that conducted in the Sinai should be reasonable candidates for using composite AC/RC, or possibly all-RC, units. For example, the conditions in Macedonia, while not as stable and with somewhat greater threat, are more similar to the Sinai conditions than those of Somalia or Bosnia. Clearly, future research involving such missions is needed to arrive at a definitive answer.

RECOMMENDATIONS

Given the above caveats, we recommend the following for each of the five areas researched:

1. Personnel: Although the RC eventually filled all its personnel slots for the Sinai mission, the recruiting/selection process could be improved. First and foremost, we recommend that the unit responsible for recruiting maintain frequent communication with volunteers about

Table 17-1
Ratings of Peace Operations [1]

Peacekeeping Dimensions	Mission: Sinai	Macedonia	Lebanon	Haiti	Somalia	Bosnia[2]
Situation Stability Predictability and amount of change during the operation	High	Mod	Mod	Lo	Low	Low
Complexity of Force AC & RC, joint, multinational, UN operation	Low-Mod[3]	Mod	Mod	High	High	Mod
Complexity of Org. Environment Presence of non-government organizations, local governments, volunteers, community organizations	Low	Mod	Mod-High[3]	High	Low-High[3]	Mod
Amount of Threat/ Lethality Types of weapons being used, likelihood of violence	Low	Mod	Mod	Mod-High[3]	Mod	High
Certainty of Duration Degree of certainty soldiers feel about the length of their deployment	High	High	Mod	Mod	Mod	High
Media Interest/Presence Amount, accuracy and immediacy of media reporting	Mod	Mod	Mod	High	High	Mod-High[3]
Public Acceptance Degree of American support for the mission	High	Mod	Mod	Mod	Low	Mod

[1] Dimensions are from Steinberg (1994). Mission ratings for the Sinai and Lebanon are adapted from Litz (1996) Mission ratings for Haiti, Somalia, and Bosnia are from Steinberg (personal communication, 17 July 1996 and 19 August 1996). Ratings for Macedonia are by the author.
[2] Ratings as of July 1996.
[3] Ratings vary over the mission duration.

their selection status. Second, the conditions, opportunities, and benefits of volunteering need to be spelled out in advance, standardized, and presented in writing to all volunteers, regardless of their component, unit, or location. Adherence to these recommendations should reduce RC volunteer drop-out rate.

2. *Training:* Improvements can also be made in the area of training. First, shorten predeployment training by focusing on only mission-specific peacekeeping tasks. Concentrate leader training on "training the trainer" and on building unit cohesion. Conduct this training as part of mission-specific task training to eliminate the need for a separate Infantry Leaders Course. Second, reorient training to include synchronization of command and control functions under a variety of situations; e.g., unauthorized aircraft sightings, medical emergencies, and armed attacks. Consider use of simulations and simulators to support the conduct of this training. Third, use the job knowledge test from this research to identify topics in need of training emphasis. Validate the supervisor rating scale that we developed and then use it to assist leaders in evaluating job performance. Fourth, develop measures of unit peacekeeping performance. One limitation of our research has been the inability to measure how well the composite unit performed its mission. Our individual measures of performance and job knowledge do not necessarily reflect aggregate unit performance. Unit performance measures would enable diagnostic assessment before a unit prepares for a peacekeeping mission, unit evaluation before deployment, and a better means of validating individual performance measures.

3. *Attitudes and Perceptions:* Many of reported morale problems were traced to a discrepancy between what the soldiers expected from the Sinai experience and what actually occurred. To preclude this situation, set more realistic soldier expectations by improving the frequency and accuracy of information disseminated during recruiting and reinforce during training. In addition, train leaders to recognize conditions of peacekeeping that often lead to morale problems; e.g. boredom, repetitious tasks, isolations, and ambiguous rules of engagement. Leaders also need to be aware that it is common under these same conditions for leaders to contribute to decreased morale by micromanaging their subordinates.

4. Family Support: To ensure continued success in this area, we recommend first that family support be kept as a high battalion priority. Second, use family support providers as geographically close to families as possible by maximizing the use of existing state and local family assistance programs. Third, improve the accuracy of information on addresses and telephone numbers to promote more proactive family support. Fourth, provide information on how and when soldiers can call home most inexpensively. Budget for morale calls (at least one free-of-charge telephone call home per month) and provide toll-free numbers to reach family assistance officers even before deployment.

5. Impact on RC Home Unit: To minimize the readiness impact on home units due to the loss of personnel to peace missions, we recommend first that only a limited number of soldiers be drawn from individual battalions and that recruiting be done from the largest volunteer pool possible. Second, we recommend that RC units consider sponsoring more special missions, such as peacekeeping, to take advantage of the morale benefits observed in the present research.

Finally, the strategy of using RC soldiers to augment or replace AC soldiers on peace missions can free up AC soldiers for future contingencies. Lessons learned from this research can be applied to future Sinai peacekeeping rotations as well as to other potential peace missions throughout the world. As we move toward a more global society in the 21st century, it is time to expand our military strategies to include an increased role for citizen soldiers. Certainly, the 28th Rotation to the Sinai has demonstrated their willingness and ability to serve.

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APPENDIX

Beatrice J. Farr

SUMMARY OF SOLDIER COMMENTS

Following the administration of the soldier surveys 4 months into the deployment in the Sinai, we asked soldiers to anonymously provide us written comments on their MFO experience. Each soldier was provided with a blank piece of paper; soldiers were not required to provide these comments. We received 553 comments from 184 members of Rotation 28 (23 from A Company, 37 from B, 36 from D, and 43 from Headquarters). The comments fell into the six broad areas listed below. The frequency and percent of total comments in parentheses indicate how many comments related to the topic were made by the Rotation 28 members. The six areas are listed from least to most frequently mentioned.

1. ISSUES RELATING TO ARI'S SURVEYS (33 comments; 6%)

The most common complaint about ARI surveys was that there were too many surveys and that they were too personal. The other main concern was that no one would pay attention to the surveys.

- *"I think that this test is taken too often and that the soldiers are getting tired of it."*
- *"Your questions about my wife and her finances in her civilian job are none of your business."*
- *"I know that whoever reads this will likely disregard what's been written, but I have hope."*

- *"I wonder if these ARI questions are really going to do any good. Especially negative comments...or will those 'accidentally' be destroyed?"*
- *"I honestly feel that these surveys are pointless. We've all given thought-out, legitimate complaints multiple times with no change."*

2. COMMENTS RELATING TO COMMUNICATION (55 comments; 10%)

These were primarily complaints about being lied to and not having promises kept, as well as problems relating to an inadequate flow of information.

- *"We, National Guardsmen, have been treated poorly, promised things that never happened, disrespected as human beings and consistently screwed."*
- *"This unit lied to every Active Duty soldier, and continues to lie about follow-on assignments and other bull."*

3. PROBLEMS SPECIFIC TO THIS MISSION—WHAT WENT WRONG (79 comments; 14%)

Many complained about inadequate education and rest and relaxation (R&R) opportunities. About 25% felt that various aspects of training were not appropriate, and quite a few noted that services such as phone, transportation, and mail were inadequate.

- *"No R&R, no free time, and all the dog and pony shows get old fast."*
- *"We've all spoken with soldiers who have been on this mission before, and they all had much more time off."*

- *"We do very stupid training."*
- *"I feel I'm going to have to be retrained when I get back to my unit."*

4. COMMENTS RELATING TO THE CONDUCT OF THE MISSION (107 comments; 19%)

This category included both favorable and unfavorable comments (particularly about disapproval of the mission), unpleasant tasks, and negative comparisons to other missions.

- *"This is my third tour with the MFO, and it couldn't have been better."*
- *"This deployment has been the worst experience of my ten year career in the Active Army. Never have I been more disgusted with a unit, and the military in general, than now."*
- *"I do not wish any help on my part, but I wish someone would look into this to help future soldiers who may be on a mission like this."*
- *"Let the world police its own!"*

5. COMMENTS ABOUT THE COMPOSITE UNIT (105 comments; 19%)

About 25% of the comments on the composite unit expressed a dim view of the mixed battalion, and another 25% related to RC soldiers' complaints about AC soldiers and leaders.

- *"I feel the RC is able to do peacekeeping missions but I don't think using Active Duty mixed is a good idea."*
- *"This composite unit is a prime example of a good idea gone bad."*
- *"Morale took a dive because of the treatment the National Guard/Reserve units got."*

- *"Officers and a few NCOs try to find fault with anything the National Guard/Reserves do. Even when we are being counseled, we are the dirt bags."*

6. ISSUES RELATING TO LEADERSHIP (174 comments; 31%)

This was clearly the most disturbing aspect of the mission for many soldiers. Many complained about being micromanaged, treated like children, and feeling that they were not respected. The chain of command, especially high-level leaders, received more criticism than did midlevel managers.

- *"Top management is more concerned with their own careers and evaluation reports than the welfare of their troops."*
- *"I think the 'fear of failure' climate detracted from the overall mission effectiveness."*
- *"The leadership doesn't care how the enlisted men are treated as long as we are looking good."*
- *"Never before have I witnessed such a deep lack of concern for the soldier and his family...especially the Active Duty soldier."*
- *"Our Active Duty [high level leader] does not appear to trust or respect the men from the Reserves or Active Army."*
- *"I feel that my immediate leadership is very lacking. I have not been counseled in 3 months."*
- *"The majority of the National Guard are over 21, educated, have civilian jobs, but are still treated like children."*
- *"I have stood up for all my soldiers and anyone who needed some help, until they finally brought charges against me."*
- *"I see many soldiers who work hard and are getting nothing, and I see those who use them as stepping stones being considered for MSMs and ARCOMs."*

- *"This Battalion is possibly the most ineptly run, and possibly the lowest morale of any Battalion I have ever seen."*
- *"Please help prevent this [all the things causing low morale] from happening in the future. I care about the Army, my country and myself and I cannot stand to see these things happening. Thank you."*